HORSELESS CARRIAGE GAZETTE

VOLUME 19 No. 2
MARCH-APRIL, 1957

THE JOHN CRERAR LIBRARY
MAY 3 - 1957

Horseless Carriage Club of America

Founded in Los Angeles November 14th, 1937

A nonprofit corporation founded by and for automotive antiquarians and dedicated to the preservation of historical automobiles, their accessories, archives and romantic lore.

OFFICERS

HERB PRENTICE	President
HERMAN BEAR	Vice President
BEN MOZZETTI	Secretary
LESTER BARNETT	Treasurer
Dr. ALFRED S. LEWERENZ	Chairman, Board of Directors

DIRECTORS

Lester Barnett
Herman Bear
G. C. Coffee
Ward Kimball
Dr. Alfred S. Lewerenz
Ben Mozzetti
Herb Prentice
Arthur G. Rippey

COMMITTEE CHAIRMEN

ACTIVITIES	Herman Bear
REGIONAL GROUPS	Harry B. Johnson
GAZETTE	Dr. Alfred S. Lewerenz
TIRES	Harry B. Johnson

HONORARY DIRECTORS

Lindley F. Bothwell
Floyd Clymer
Harry B. Johnson
Dr. Alfred S. Lewerenz
W. Everett Miller
Herbert Royston
Dr. George Shafer
Steadman G. Smith
Arthur E. Twohy

DIRECTORS' TERMS OF OFFICE

1955-57
Ward Kimball
Ben Mozzetti

1956-58
Herman Bear
G. C. Coffee
Herb Prentice

1957-59
Lester Barnett
Dr. Alfred S. Lewerenz
Arthur G. Rippey

MEMBERSHIP INFORMATION

Active Members have all privileges of the club, including voting. Annual dues, $5.00, $4.00 of which is for one-year subscription to the HORSELESS CARRIAGE GAZETTE.

Life Members have all privileges of the club, including voting, for life, upon payment of $100 dues.

Wives of Members (Charter, Active or Life) may become Active Members with all privileges of the club, including voting, except that but one copy of each National notice and each GAZETTE shall be sent jointly to husband and wife. Annual dues, $1.00.

Honorary Members have all privileges of the club except voting.

Regional Group Members, who must also be members of the National organization, pay dues as established by the more than 60 local clubs throughout the country.

Membership application forms now require the signatures of TWO recommending members. Forms bearing only one signature will henceforth be returned to applicants.

THE EDITOR SOUNDS OFF

In the near future, the GAZETTE Committee proposes to begin a feature on car identification and dating. Send in your "What's Its" with details and serial and engine numbers, wheelbase, etc. Include front and side view photos if possible.

Persons considering the formation of a Regional Group are urged to contact J.O.Goodell, Regional Groups Chairman, who will outline the necessary procedures and lend all possible support.

Orders for emblems, general inquiries and classified advertising insertions will receive more speedy action if submitted to the business office SEPARATELY. Remittances should accompany all orders. Remember, Regional Groups only receive a 25% discount on accessory (emblem, lapel pin, etc.) orders totaling more than $25.00.

The touring season is upon us (see page 8!), and while local events need your support, do not fail to consider attending the more distant activities. A drive of a couple thousand miles is nothing once you've tried it! And the rewards are great.

But while touring happily along in a caravan this summer, give a thought to the plight of members of the oldest of the antique car clubs, the Veteran Car Club of Great Britain (founded 1930) who announced in February that ALL activities for the year had been cancelled. The petrol shortage, you know. Not that the old cars themselves use so much fuel, but the crowds of spectators drawn to their events would entail a big non-essential fuel expenditure.

The Kern County (California) Antique Auto Show announced in the last GAZETTE "Coming Events" listing has been cancelled.

BACK ISSUES OF THE GAZETTE, $1.00 a copy

1957 REGIONAL GROUP SECRETARIES

ARIZONA
Al Wethington
6162 So. Fontana Ave.
Tucson 2, Arizona

BAY AREA, CALIFORNIA
Dave Depue
Route 1, Box R-6
Livermore, California

CANTON, OHIO
Clement Komsa
4647 W. Tuscarawas
Canton 8, Ohio

CENTRAL CALIFORNIA
Bob Moran
3445 Lasoma Ave.
Fresno 5, California

COLORADO
Martin Krusnik
2709 S. Cook St.
Denver, Colorado

EL PASO, TEXAS
John Ferrell
7723 Cielo Vista Dr.
El Paso, Texas

GREAT FALLS, MONTANA
Clive Connor
708 17th St. North
Great Falls, Montana

HARTFORD COUNTY, CONN.
Winford Smith
492 Jerome Ave.
Bristol, Connecticut

HEART O' TEXAS
Robert Weathers
4012 Homan Ave.
Waco, Texas

HUTCHINSON, KANSAS
T. A. Erhard Jr.
914 W. 10th
Hutchinson, Kansas

INDIANAPOLIS, INDIANA
Paul Jarvis
1018 E. Tipton St.
Seymour, Indiana

KANSAS CITY, MISSOURI
Donald Harper
5819 Norton Ave.
Kansas City 30, Mo.

MEMPHIS, TENNESSEE
T. J. Curry
2485 Browning Circle
Memphis 14, Tennessee

MODESTO, CALIFORNIA
Ernest Mandicki
1236 W. Roseburg
Modesto, California

NEVADA
Wayne Martin
P.O. Box 819
Reno, Nevada

NEWPORT BEACH, CALIF.
Bob Walter
10442 Newport Ave.
Santa Ana, California

NORTHERN CALIFORNIA
Phil Amirsaw
5511 San Ysidro
Sacramento, California

NORTH CAROLINA
David Hinkle
100 Randolph St.
Thomasville, N.C.

NORTH TEXAS
Dr. W. A. Russell
6701 Preston Road
Dallas 5, Texas

OMAHA, NEBRASKA
Capt. Tom Nichols
1, Hommer Road
Offutt AFB, Nebraska

PLAINVIEW, TEXAS
Bill Cain
4204-A 55th Street
Lubbock, Texas

RAPID CITY, So. DAKOTA
Lillian Ostranier
P.O. Box 1681
Rapid City, S.D.

St. LOUIS, MISSOURI
Fred Batcher
2479 Hartland Ave.
Overland 14, Mo.

SAN DIEGO, CALIFORNIA
Charles McDonald
4421 Arch Street
San Diego 16, Calif.

SAN FRANCISCO, CALIF.
Verna Lundell
8017 Crest Ave.
Oakland 5, California

SANTA CLARA VALLEY, CALIF.
Durden Roper
1665 Lloyd Way
Mountain View, California

SANTA ROSA, CALIFORNIA
Morgan Morse
119 Boas Drive
Santa Rosa, California

SEATTLE-TACOMA, WASHINGTON
Dick Kirsten
Rt. #2, Box 46
Roy, Washington

SOUTHERN CALIFORNIA
Bill Collier
440 Cliff Drive
Pasadena 8, Calif.

SOUTHERN ONTARIO, CANADA
Don Warren
15 Mayfair Street
P.O. Box 116
Dundas, Ontario, Canada

SOUTH TEXAS
Claude Cato
2401 La Branch
Houston 4, Texas

SOUTHWEST IDAHO
Robert Vernon
9 - 11th Street
South Nampa, Idaho

TRENTON, NEW JERSEY
Patricia Schinkel
522 No. Olden Ave.
Trenton, N.J.

TULARE COUNTY, CALIF.
Nadine Harder
1405 Magnolia Ave.
Farmersville, Calif.

TULSA, OKLAHOMA
John Wilkinson
5722 E. 22nd St
Tulsa 14, Oklahoma

VALLEY OF THE SUN
Bernhard Harvey Jr.
2925 E. Highland Ave.
Phoenix, Arizona

WICHITA, KANSAS
A. R. Masters
4845 Armstrong
Wichita 4, Kansas

UNREPORTED

Abilene, Texas
Atlanta, Georgia
Austin, Texas
Bakersfield, Calif.
Baton Rouge, La.
Casper, Wyoming
Central Illinois
Corpus Christi, Texas
Fairfield County, Conn.
Lexington, Nebraska
Minneapolis, Minn.
New Orleans, La.
Pittsburgh, Penna.
Salt Lake City, Utah
San Antonio, Texas
San Rafael, Calif.
Santa Barbara, Calif.
Santa Maria Valley, Cal.
Sooner, Oklahoma
Tree City, Indiana
Wichita Falls, Texas
Yakima Valley, Wash.
York, Pennsylvania

1956 *Financial Statement*

GEORGE N. FRANCIS
CERTIFIED PUBLIC ACCOUNTANT
1055 WEST 67TH STREET
LOS ANGELES 47, CALIFORNIA
PLEASANT 8-5358

HORSELESS CARRIAGE CLUB OF AMERICA
BALANCE SHEET (A)
DECEMBER 31, 1956

EXHIBIT A.

ASSETS		
CURRENT ASSETS		
Cash in Bank	$ 6,912.71	
Inventories of Resale Items (at cost)	2,723.61	
Total Current Assets		$ 9,636.32
INVESTMENTS (at cost)		
United States Savings Bonds, series C, D, F and J		10,553.00
OTHER ASSETS (at nominal value)		
Office Furniture and Equipment		1.00
Total Assets		$20,190.32
LIABILITIES AND NET WORTH		
CURRENT LIABILITIES		
Payroll Taxes Payable		$ 128.25
NET WORTH		
Balance, January 1, 1956	$17,632.87	
Add: Excess of Income over Expenses for the Year Ended December 31, 1956, per Exhibit B.	2,429.20	
Balance, December 31, 1956		20,062.07
Total Liabilities and Net Worth		$20,190.32

(A) Prepared from the records of the Horseless Carriage Club of America without independent verification.

GEORGE N. FRANCIS
CERTIFIED PUBLIC ACCOUNTANT
1055 WEST 67TH STREET
LOS ANGELES 47, CALIFORNIA
PLEASANT 8-5358

HORSELESS CARRIAGE CLUB OF AMERICA
STATEMENT OF INCOME AND EXPENSES (A)
FOR THE YEAR ENDED
DECEMBER 31, 1956

EXHIBIT B.

INCOME		
Income from Active Membership Dues	$25,132.00	
Less: Refunds	118.00	$25,014.00
Income from Advertising		2,949.85
Income from Sales of Resale Items	3,467.84	
Less: Cost of Items Sold	1,313.74	2,154.10
Income from Annual Dinner Reservations		1,238.55
Sundry Income		518.23
Total Income		$31,874.73
EXPENSES		
Gazette Preparation and Printing	$14,762.68	
Stationery and Printing	1,113.50	
Postage	1,145.00	
Meet, Tour and Caravan Expenses	2,224.54	
Emblems, Trophies, and Plaques Expenses	365.46	
Salaries	4,441.00	
Annual Dinner Expenses	1,502.80	
Payroll and Other Expenses	143.06	
Telephone Expense	209.83	
Rent Expense	455.00	
Office, Utilities and Sundry Expenses	769.70	
Insurance Expense	240.36	
Accounting Fees	330.00	
Rosters Expenses	1,548.46	
Election Expenses	191.84	
Total Expenses		$29,445.53
Excess of Income over Expenses		$ 2,429.20

(A) Prepared from the records of the Horseless Carriage Club of America without independent verification.

DISNEYLAND FIELD MEET May 11 & 12. An important Southern California Regional Group meet well worth attending. Information from GORDON HOWARD, 225 S. Valley St., Burbank, Califirnia.

SIXTH GRAND CANYON TOUR May 28-June 1. See notice on page 36.

4th ANNUAL MONTANA MEET May 31, June 1 & 2. For information, write CLIVE CONNOR, 708-17th Street No., Great Falls, Montana.

10th HCCA ANNUAL CARAVAN June 13-14-15-16, through central California and the Yosemite Valley. See announcement on page 7.

FEATHER RIVER TOUR June 28-29-30. Sponsored by the Northern California Regional Group, this tour will feature a stop at the famed Feather River Inn, a trip on a river steamer and a drive over some fine paved roads through beautiful country. For information write ED CATLETT, 4885 Vee Street, Sacramento 17, California.

FOURTH TEXAS TOUR July 26-27-28 at Austin, Texas.

BAY AREA FIELD MEET August 23-24, with lodging at Castlewood, California, country club.

TOUR TO THE BLACK HILLS A Labor Day event sponsored by the Casper, Wyoming, Regional Group. Details later.

WEEKEND IN SAN FRANCISCO September 21 & 22. This premier effort of the San Francisco Regional Group promises to be a very original event; watch for more details.

McHENRY VILLAGE ANTIQUE AUTO SHOW September 28 & 29. Chairman of the event is ERNEST MENDICKI, 1235 W. Roseburg, Modesto, California.

GLIDDEN TOUR October 13-19. Roanoak, Virginia to Hershey, Pennsylvania.

WARNER HOT SPRINGS TOUR October 26 & 27. The annual overnighter co-sponsored by the San Diego and Newport Beach Regional Groups.

If You Love That Car–

INSURE IT

We Have The Cheapest
AND THE BEST PROTECTION
YOU CAN BUY

Public Liability ($50/100,000) $14.50
Property Damage ($5,000) $5.00
Comprehensive Fire and Theft 75¢ per $100
(Minimum Premium $10.00)
$50 Deductible Collision $1.15 per $100
(Minimum Premium $15.00)

These are Los Angeles rates. They may be lower or higher depending on locale. Call or write us for details.

OBRION, RUSSELL & CO.
3325 Wilshire Boulevard
LOS ANGELES

DUnkirk 8-3316

Boston *New York*

Insurance of Every Description

PHOTO CREDITS

Page 7.....Louis Cook, Pasadena, Calif.
Pages 8-12..Dr. E.C. Lawrence, San Jose, Calif.
Pages 16-17..Manning Bros., Highland Park, Mich.
Page 33..... M-G-M Studios
Page 36.....Victor Heim, Houston, Texas
Pages 38-39..Modern Advertising Service, London
Page 47.....Knaud Int. en Publ, Hague, Holland
Page 50....Warner Walker Studio, Exeter, Calif.
Page 60....Warner Walker Studio, Exeter, Calif.

INTERNATIONAL VETERAN CAR RALLY OF THE GENERAL SCHNAUFERL-CLUB FROM HAMBURG TO TRAVEMÜNDE ON 1ST AND 2ND JUNE 1957.

The Rally will pass through one of the most beautiful landscapes of North Germany between Hamburg and the Baltic Sea coast.
The control of the meeting will be in the hands of the ADAC Gau Hansa, who will carry it through in accordance with the international rules of the ONS.
Three and four wheeled motor vehicles produced up to and including 1926 are permitted to take part. They will be classified according to their stage of life and will be so started and assessed at the end.
We cordially invite you to our Veteran Car Rally.

SEND RESERVATIONS TO GEZ. G. GOEDECKE
Geschäftsstelle des Allgemeinen Schnauferl-Club
Mönckebergstr. 19 • **Hamburg 1** • GERMANY

HORSELESS CARRIAGE GAZETTE

OFFICIAL PUBLICATION OF THE

HORSELESS CARRIAGE CLUB OF AMERICA

VOL 19, No. 2
MAR. APR. 1957

THE COVER PICTURE shows three MERCURY cyclecars on a Highland Park, Michigan, street in 1914. This photo was printed from a glassplate negative still in the files of the original photographers.

The HORSELESS CARRIAGE GAZETTE is published bimonthly by the Horseless Carriage Club of America. Articles appearing in this publication, contributed by members, express the individual opinions of the writers and are not necessarily the opinions of the Editors. Written permission must be obtained from the Board of Directors of the Horseless Carriage Club of America for the reproduction of ANY material appearing in the

HORSELESS CARRIAGE GAZETTE.

HCCA OFFICE ADDRESS
7730 So. Western Ave.
Los Angeles 47, California

PRINTED BY
LITHO COLOR
Glendale, California

EDITOR . . . . . Fred Hayward
ASSOCIATE EDITOR . . . . . Julian Goodell
DISPLAY ADVERTISING MGR. . . . . Herb Prentice
CONSULTING EDITOR & CARTOONIST . . . . . Ward Kimball
CONTRIBUTING EDITOR . . . . . Virginia Barnett
RESEARCH CONSULTANT . . . . . Dr. Alfred Lewerenz
PRODUCTION AND LAYOUT . . . . . Albert J. Dunkel

IN THIS ISSUE

The annual Santa Clara Valley (California) BLOSSOM TOUR kicked off the year's touring season in fine style. The complete story begins on . . . . . Page 8

CYCLECARS were big news in 1913 and 1914, but didn't stay around for long. Highlights of the craze are covered in this issue of the GAZETTE. See . . . . . .Page 13

The DO-IT-YOURSELF fad is nothing new. Our member Howard Curtiss of Kansas City tells how he assembled a HOLLEY car in his basement in 1904. Story on . . . . . .Page 40

REGIONAL GROUP SECRETARIES. 3
COMING EVENTS 4
EDITORIAL 6
OBITUARIES 6
MERCURY CYCLECARS 16
SCRIPPS-BOOTH CYCLECARS 18
WOODS MOBILETTE CYCLECARS 20
LaVIGNE CYCLECARS 24
HOW TO BUILD A CYCLECAR 28
GENTLEMEN'S MOTORING GARMENTS 32
REGIONAL GROUP HIGHLIGHTS 36
BOOK REVIEWS 37
MICHELIN PNEUMATIC TIRES 38
PIONEER AUTOMATIC TRANSMISSIONS 42
THE JACQUOT STEAM CAR 46
SERVICE DIRECTORY 48
CLASSIFIED ADVERTISING 49
GAZETTE QUIZ 57
NATIONAL TOUR NEWS 60
FAMILY ALBUM 62
ASININE ALLEY 63

Second Class Mailing Privileges authorized at Los Angeles, California.

EDITORIAL
We are HERE TO HELP

If you are confronted with problems of dating, authentication and restoration of an antique automobile, this is a message to you.

An organization, such as the Horseless Carriage Club, exists to mutually aid individuals concerned with like interests. Communication is an essential part of the exchange of hobby information and materials. In the days when the Club was small this interchange could take place on a person-to-person basis. Today, with regional groups distributed over the entire nation, the only way the parent organization can reach the majority of its members is through the pages of the "Horseless Carriage GAZETTE." This publication is the channel by which a member can make known to others his wants or his automobiliana for exchange. The "GAZETTE" also is the means of disseminating news of regional group activities, how-to-do it information, historical researches and the wealth of useful contributions to be found in each issue of the magazine.

The management of the "GAZETTE" strives to foster the objectives and standards for which the Club has stood during the twenty years since it was founded. One of these objectives, as stated in the By-laws, is to "serve as an accurate and technical source of information concerning ancient automobiles."

The "GAZETTE" policy is to carry out this objective with the Board of Directors and staff members serving as a resource for information. The "GAZETTE" therefore invites you to avail yourself of the research facilities of the Club. Historical information, mechanical data, and technical references usually can be secured by addressing your request to the Editor. Your letter will be referred to the individual in the Club's Organization who probably best can help you. If the question is one for which an answer can be secured, you will receive a reply either by letter, or, if the subject is of general interest, the answer will be printed in the columns of the "GAZETTE."

LETTERS to THE EDITORS

We wonder whether any of your members have heard of a SIMMS-WELBECK six cylinder car in existence in the United States. The Simms Manufacturing Company, Ltd. produced this car during 1906 and 1907 and we are interested in buying an original model. We have tried advertising for one in this country but have met with no success; we feel, however, that there may be a slight chance of a better result in the States. We should be grateful for any help you can give us.

Simms Motor Units, Ltd.
East Finchley, London (N. 2), England

D. E. Wood,
Publicity Officer

A friend in Reno sent me the STEERING COLUMN and I want to say I agree 100% with the Editorial. Let me quote: "....Age alone does not make an antique, in the true sense of the word. The period of time, the age or era in which it was created... determine the strict classification. In affixing 1915 as the latest year of manufacture that allows an automobile to be classified as an antique, a wise choice was made. 1915 is the last year of a definite era. It is for all practical purposes the end of the so-called 'Gas Light' era; it marked a definite trend among automobile manufacturers to discontinue the extensive use of brass both as a useful and ornamental metal for automobiles." But there are lots of the cars built after the Big War still around, and I would like to know if there is a club for "Vintage" cars like the Model A and T clubs? The late cars sure don't belong with the real antiques, but should have another club. Can they join the Classic Car Club or is that just for real good cars?

Watsonville, California — Tom Richards

Louis Semple Clarke, founder of the AUTOCAR company, died in mid-January at Palm Beach, Florida. He built his first vehicle, a motor tricycle, in 1897, and a few years later built America's first shaft-driven automobile. Both these vehicles are preserved in the Smithsonian Institute in Washington, D. C.

Charles G. Roos of North Hollywood, California, died on February 20th. An HCCA member for some years, he is survived by, among others, his brother Len Roos of Burbank, California.

John DePalma, brother of the late Ralph DePalma, died March 5th at Van Nuys, California. After an apprenticeship as riding mechanician to Ralph, he had a brief career as a driver himself; in recent years he was an automotive public relations executive.

NEW SIZE TIRES AVAILABLE

SIZE	PLY	TYPE	BLACKWALL PRICE	WHITEWALL PRICE	TUBE PRICE
30x3½	4	Clincher	$25.95		$2.95
32x3½	4	Straight Side	29.95	$37.95	3.95
• 32x3½	4	Clincher	29.95	37.95	3.95
33x4	4	Straight Side	29.95	37.95	3.95
• 33x4	4	Clincher	29.95	37.95	3.95
34x4½	4	Straight Side	40.00	50.00	5.50
35x5	6	Straight Side	44.00	54.00	5.50
37x4½	6	Straight Side	48.00	58.00	6.95
7.50x17	6		47.50	54.95	6.45
4.75/5.00x19	4		15.82	24.95	2.95
• 7.00x19	6		44.00	54.00	6.75
6.00x20	6		30.00	40.00	5.25
6.50x20	6		35.00	45.00	6.25
7.00x20	6		45.00	55.00	6/75
• 7.00x21	6		46.00	56.00	6.75
4.40/4.50x21	4		15.82	24.95	2.95
30x3					2.75

All prices are subject to change without notice. All prices include Federal Tax, and are f.o.b. Fort Wayne. A 50% deposit must accompany all orders. Balance c.o.d., or you may make payment in full with the order and save c.o.d. charges.

• Equipment is on order to manufacture these sizes. Production will begin as soon as equipment is delivered.

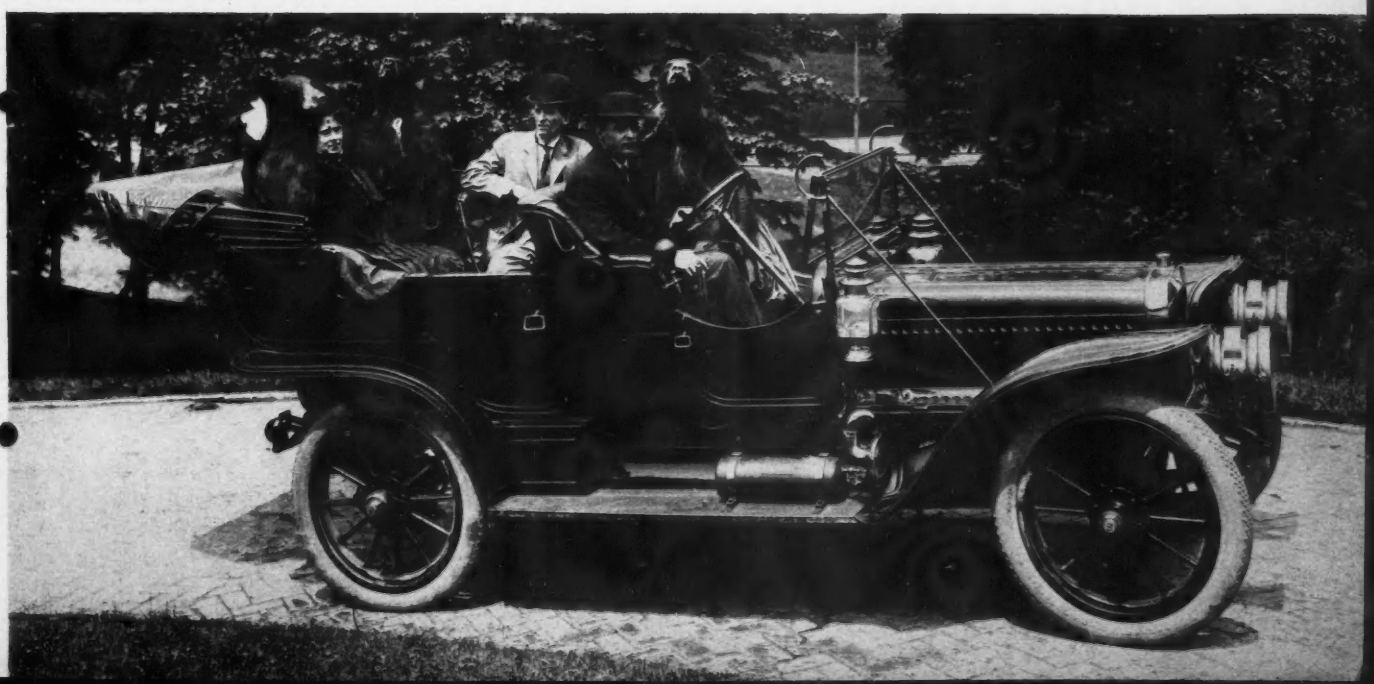
GEHRIG TIRE COMPANY

721 EAST WASHINGTON, FORT WAYNE, INDIANA

Louis Cook says this photo shows HERMAN AND THREE OTHER BEARS doing preliminary work on the National Tour. Yosemite has bears, all right, but Tour Chairman Bear promises that HCCA tourists will not be asked to carry them as passengers. For more information on the year's big event see pages 60-61, and watch for the colorful brochure and entry blank. Car is a Winton.

10th NATIONAL CARAVAN

JUNE 13-14-15-16



SANTA CLARA VALLEY HORSELESS CARRIAGE CLUB
Blossom Tour
Saturday & Sunday
MARCH 30-31
PALO ALTO
MOUNTAIN VIEW
LOS ALTOS
SUNNYVALE
SANTA CLARA
SAN JOSE
STEVENS CREEK ROAD
SARATOGA
CAMPBELL
LOS GATOS
BLOSSOM HILL
DOWNER
HILLSDALE
BAYSHORE
BIG CARS THIS WAY SATURDAY A.M.
TRADER LEWIS ALL CARS MEET AND LEAVE FROM HERE SATURDAY & SUNDAY A.M.
RED COACH INN ALL CARS MEET HERE SUNDAY A.M. FOR BRUNCH
ALL CARS THIS WAY SUNDAY A.M.
BIG CARS BY WAY OF STEVENS CREEK BLVD. SUNDAY
BIG CARS RETURN BY WAY OF CALERO. SMALL CARS BY WAY OF 101 TO FORD ROAD.
ALL CARS MEET HERE FOR LUNCH SUNDAY NOON
CALERO RESERVOIR
ALMADEN
HARWOOD
MARIONE
101 MOTOR
TRANSER
SANTA CLARA VALLEY HCC

The 1957 Santa Clara Valley H C C Blossom Tour was a howling success. There were 62 antiques and 170 people in attendance. The total mileage of the tour was 125. Our one and two cylinder division had ten vehicles on their route. We hope this establishes a precedent in touring so that the small cars will return to popularity, as well as the big, fast cars.

E. C. L.

A DAIMLER, a WHITE bus and a FORD taxi.

Rounding a curve. This was typical of the route.

At the starting point.

Santa Clara Valley President, Bill Lawrence, and family rolling along in his 1915 PIERCE-ARROW.

Tour Chairman Bill Baker points out the Blossom Tour route to Virgil Whittaker and Jack Kopp.

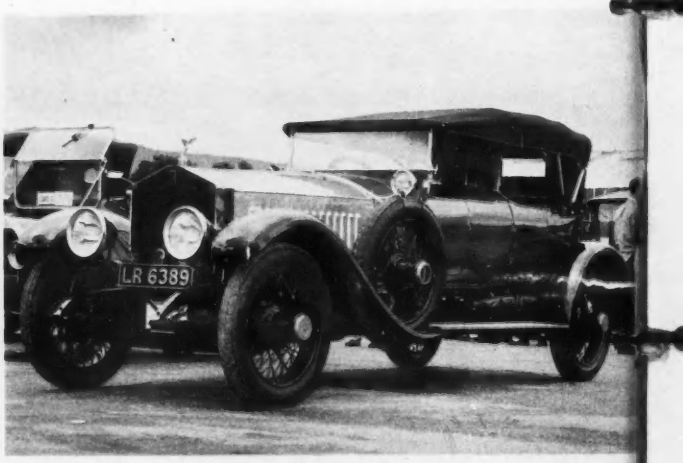
Durden Roper's 1912 MITCHELL.

Publicity Chairman Ed Pranger and family, with his 1913 STUDEBAKER.

A 1908 HUPMOBILE owned by Bill Harrison.

Tour Chairman Baker leading the way in his 1915 Ford.

Clarence Kay's magnificent 1914 ROLLS-ROYCE.



Tour Chairman of the one and two cylinder division, Phil Sanfillipo, wife Bobby, and their 1907 MAXWELL.

Chet Hanson and his 1910 BRUSH.

Spike Murphy (the original Andy Gump) atop his MAXWELL.

From Los Angeles, the Bernard Rademachers roll along in their Model A FORD.

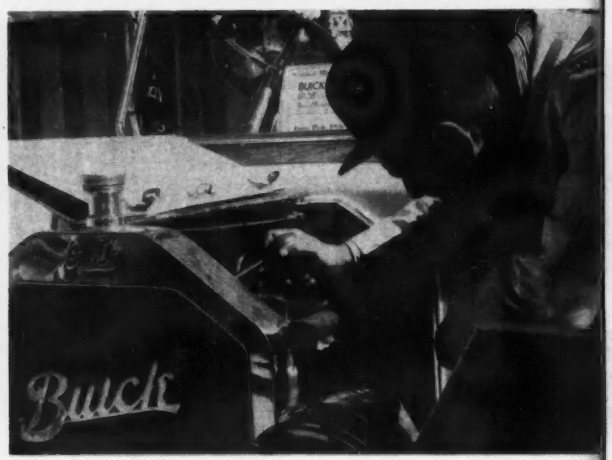
Mr. and Mrs. Mike Roberts in their newest REO, Ben Mozzetti looks on.

TROUBLES BLOOMED ON THE BLOSSOM TOUR

Bernie Sims' 1915 FORD needed adjustments en-route.

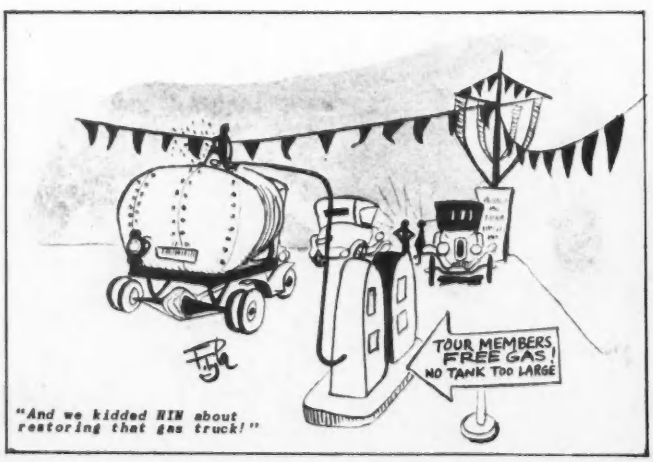
Jordan Carlton's 1913 CADILLAC developed some troubles. Notice the portable parking brake.

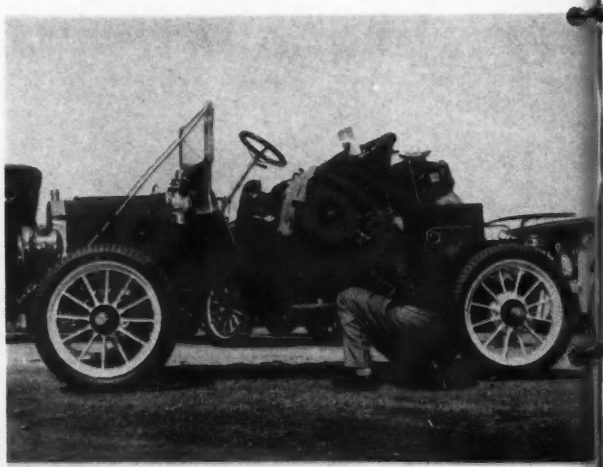
Looks like a bad timer.

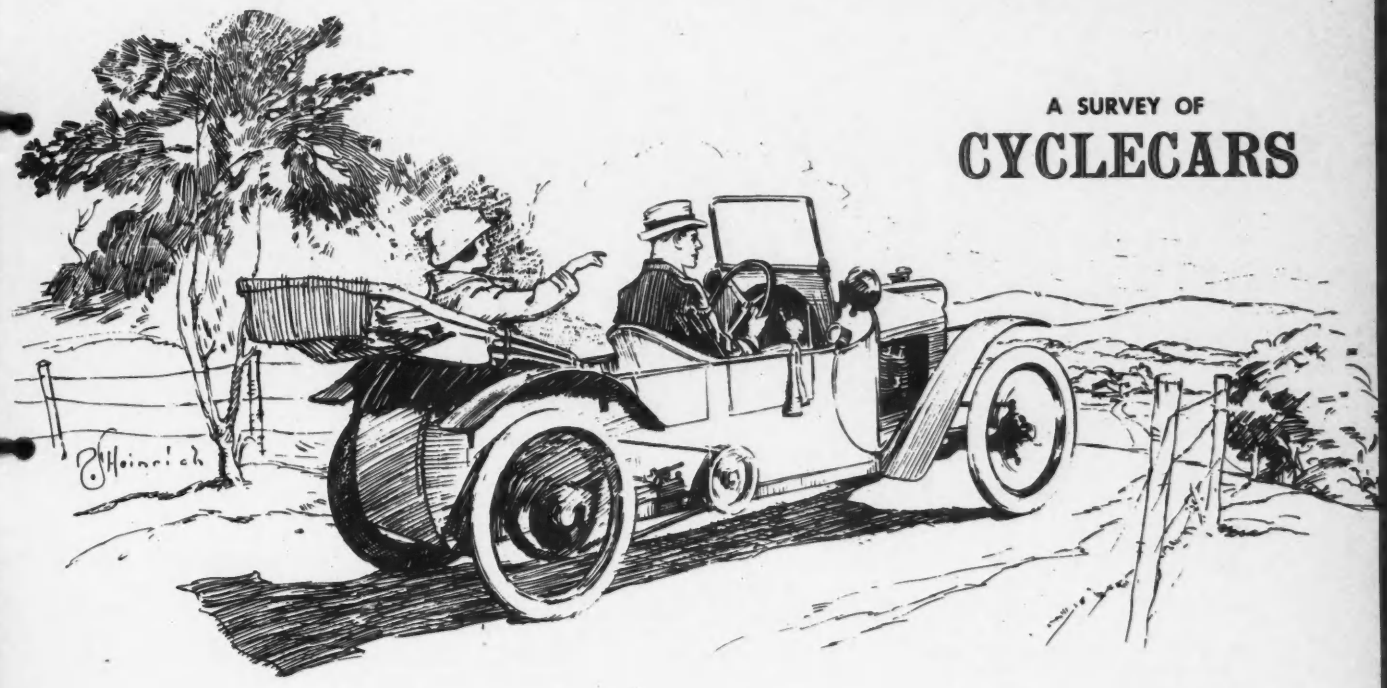


Ben Mozzetti administers to his ailing 1908 BUICK.

Its first time out, Mike Roberts' REO required minor repairs.

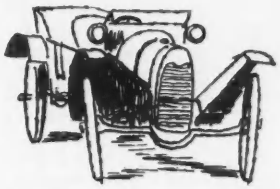






A SURVEY OF

CYCLECARS



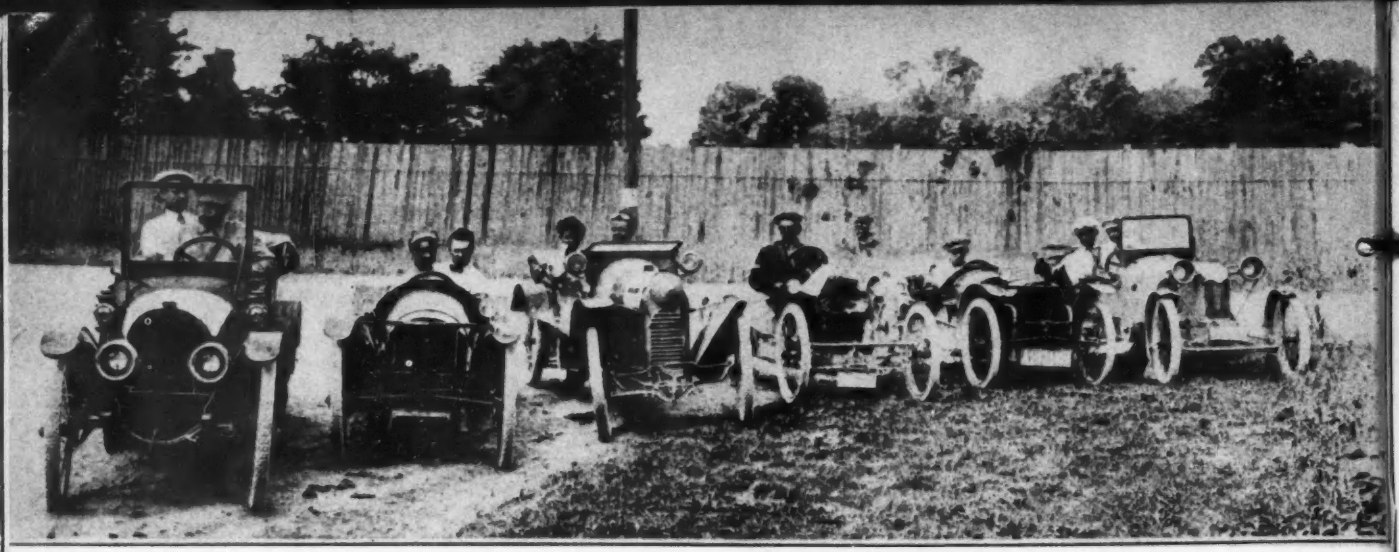
1914 was the big year for cyclecars in the United States. The boom started the previous year, and some eighty makes were advertised. They were exhibited in February of 1914 at the Chicago auto show, and in May at the Philadelphia show. But by winter it was clear that something more robust was necessary for American roads and all but a few firms closed their doors.

The cyclecar was not just a car in miniature; it was something completely unique. In the early years of the century Duryea, Kelsey, Michigan and Orient all built small vehicles (and in Europe-- deDion, Renault, etc.) but not until 1909 when the Frenchman Maurice Barbeau brought out the BEDELIA was the true cyclecar born. It is more accurate to describe it as a step above a motorcycle than as a step below an automobile. Narrow tread, light weight, spartan accomodation and generally flimsy construction marked the majority. The small size and attendant economy were the big selling points. Their price was virtually that of the FORD and other cheap automobiles.

In Europe the cyclecar had a somewhat longer life, extending into the early '20s. But even there they obeyed the universal axiom that a small car must either grow up or disappear. For many years it seemed as if the three wheeled English MORGAN (introduced in 1912) would survive the cyclecar curse, but the last "outdoor engined" MORGANS were built in 1948, and the FORD engined three wheelers a few years later.

On the following pages there appears a collection of material screened from 1913 and 1914 issues of SCIENTIFIC AMERICAN, AUTOMOBILE TRADE JOURNAL, WORLD'S ADVANCE, CARETTE & CYCLECAR, INVESTORS' MONTHLY REVIEW, plus selected pages from four cyclecar catalogs. This conveys a fairly accurate picture of the American cyclecar and its place in automotive history. Most of this material was provided by Miss Maud Payne, head of the Automotive History Collection at the Detroit Public Library.

Start



A delegation of cyclecars from Chicago and Detroit arriving at Indianapolis during the international automobile races.

Will the Cyclecar Come Into Its Own?

Possibilities and Limitations of the Light Vehicle in This Country

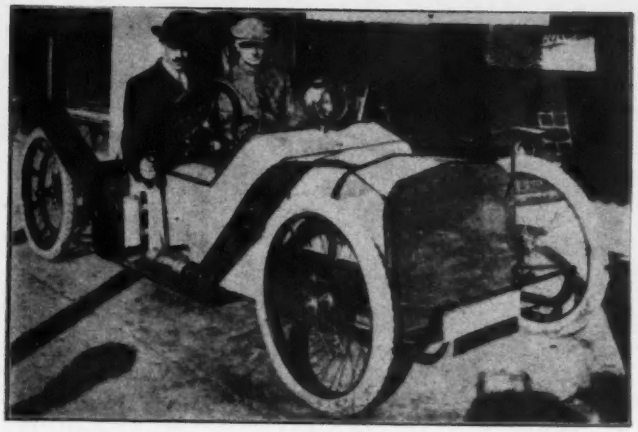
By John S. Harwhite

TO many, the cyclecar is the unwelcome latest addition to the flourishing self-propelled-vehicle family; it is deemed unnecessary and is considered to overlap the fields so well filled by the small motorcar and the motorcycle with sidecar attached. The narrow tread is cited as being eminently unfitted for our average country roads, and the short wheelbase and light weight is thought to render riding comfortable only on the veriest boulevard. But are these beliefs warranted? Is the cyclecar movement doomed to a sporadic inception and a rapid death? Will the low-priced automobile and the constantly bettered design of the motorcycle and sidecar meet to fill the field now occupied by the cyclecar? The answer to these questions cannot be found in any previous motor vehicle building experience; the cyclecar proposition is a new one, and even England, the mother of the movement, does not furnish the solution, for in that country conditions are so totally different that they offer no comparison; our average roads are poorer, our automobile-owning class is different, and the high tax on motorcars above a certain weight that really started the light-car agitation in England, is lacking here.

In this country, it is much a matter of psychology. With its million and a quarter automobiles and several hundred thousand motorcycles, it naturally seems as though almost everyone could afford to own a self-propelled vehicle of some kind. But every American is, at heart, an aristocrat; if his neighbor owns a $3,000 automobile, he too wants a "real automobile," even though he is able to afford one costing only one eighth of that amount, and in the minds of many, an automobile *must* run on four wheels. It has been the experience of the writer that the motorcycle with sidecar offers one of the most comfortable and economical means of transportation for two persons yet perfected, but "the motorcycle is *not* an automobile." It is also difficult to convince those who have never had experience with the combination that the occupant of the saddle is comfortably mounted and is insulated from the shocks and jars that such persons firmly believe are the accompaniment of motorcycling.

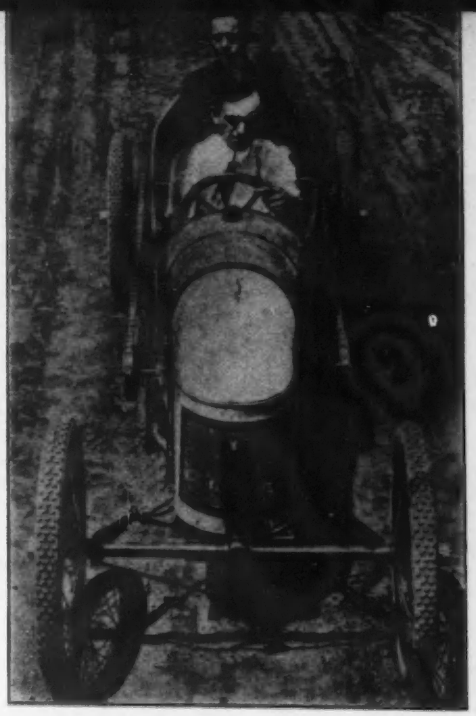
In view of these desires and beliefs on the part of a large portion of the American public, it would seem that there is a fertile field for the production of a low-priced, four-wheeled, self-propelled vehicle. Some fifty manufacturers who have announced their intention of building this type of vehicle would seem to share this opinion, at least, but the fact remains that actual *proofs* of the feasibility of the cyclecar, based on the performance of commercial quantities in the hands of a large number of users, are lacking, and, therefore, a prediction as to the success or failure of the movement can only be based on what the cyclecar is, and what it will do. Astonishing test runs of the little vehicles through snow and mud that would daunt many a larger car have been published from time to time, but these are special demonstrations participated in by experts, and it is the day-in-and-day-out *practicability* of the vehicles that will count with ninety-nine out of every hundred would-be purchasers.

For this side of the question, we must look to the design of the average cyclecar and endeavor to determine the end sought to be attained. Primarily, the cyclecar must be of low initial cost and light in weight. The actual price, size, and weight limits that distinguish the cyclecar from its "automobile" cousins have not as yet been generally accepted by all manufacturers, but it would seem that these figures should be less than those relating to the smallest and cheapest *bona fide* automobile on the market. The average of what is known as the cyclecar in this country will weigh from 600 to 900 pounds, and will cost from $350 to $500. So far as length of wheelbase and tread are concerned, we have rather indefinite figures, but the former seems to run from 90 to 100 inches. A much-mooted question among manufacturers is whether a real cyclecar can be built with the standard tread of 56 inches, but inasmuch as one of the distinguishing characteristics of the original cyclecars lies in their narrow tread, it would seem that all those possessing the standard width between wheels should properly be placed in the light-car class. It has been well pointed out by an enthusiastic cyclecar exponent that the true vehicle of this type should be a "minimum" car, minimum price, minimum weight, minimum complication of construction, and, as a result of these features, minimum cost of upkeep. It may be pointed out that the price of the cheapest of the cyclecars is not more than a hundred dollars less than the cost of one or two well-known makes of automobiles, and that some are priced at $25 more. But while the production of cyclecars in increasing quantities may serve to lower the initial cost, as has been the case with the automobile and the motorcycle, it must be borne in mind that it is the low cost of upkeep that is the primary desideratum of the cyclecar purchaser, and that, therefore, excellence of design, strength of construction, and reliability of operation should not be sacrificed in order to save a few dollars on the manufacturing cost. Naturally, light weight, without attendant sacrifice in strength of parts, is an important consideration in lowering the



The California Design Follows English Plan of Placing Occupants Side by Side.

ABOVE: The CALIFORNIA cyclecar was manufactured by the California Cycle Car Company at 818 So. Main Street, Los Angeles. Weight was 450 pounds, tread 44 inches and wheelbase 102 inches. It used a 10 h.p. two cylinder air cooled engine with a 3 3/8 inch bore and 3 7/8 inch stroke. Equipped with overhead valves, it had a 12 inch fan blowing on the cylinders, and featured an "automatic" oiler. A friction drive transmission powered a crosshaft from which two V belts drove the rear wheels. Belt tension was adjusted by moving a lever that brought the rear axle forward; the same control operated the parking brake. Underslung construction was employed and the wire wheels carried 29 x 2.75 inch tires.



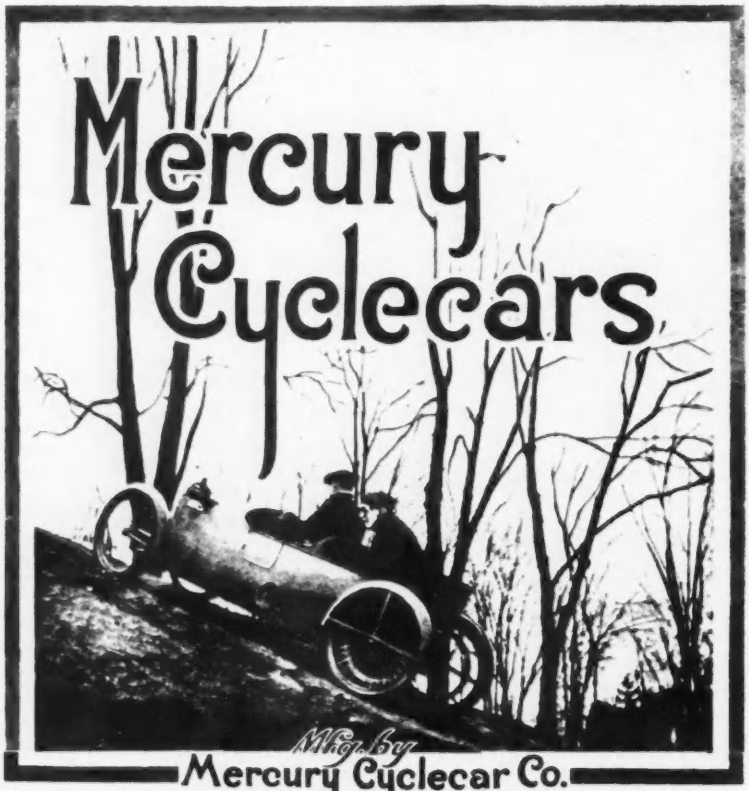
Perspective of Economycar, Indicating Arrangement of Components and Seating Accommodations.

ABOVE RIGHT: The ECONOMYCAR was made by the Economycar Company of Indianapolis, Indiana. It weighed 393 pounds, had a 36 inch tread and 106 inch wheelbase. The two cylinder air cooled 8-horsepower engine could be started from the seat! 40 miles per gallon of fuel were claimed, and the car was capable of almost 40 m.p.h. Two bodies were available: A tendem seater roadster and a single seater delivery van. The whole front axle turned.

cost of maintenance. With a 700-pound cyclecar loaded with two 150-pound passengers, the weight on each tire is but 250 pounds. This comparatively light weight carried by each wheel will not only admit of the use of small tires that cost not over $12 each, but also enables the driver to obtain greater mileage on one set than would be the case were the ordinary weight per inch of tire carried on each wheel. And with the greatest source of automobile upkeep cost reduced to a minimum, gasoline and oil expenses naturally follow suit. Many manufacturers claim that their cyclecar will travel 50 miles on a gallon of gasoline, which may or may not be the case, but even if we reduce this figure by 10 miles to make allowance for possible over-enthusiasm, the remaining 40 miles per gallon is so far superior to the performance of the average automobile that it becomes, to many men, a powerful argument in favor of the lighter vehicle.

"Granted that the cyclecar possesses these advantages of low initial cost and upkeep, its light weight renders it unavailable for comfortable riding over the average rough country road; it is suitable for the boulevards and well-kept State roads, but is it not entirely a fair-weather and smooth-highway vehicle?" the automobile owner will argue. In reply it should be stated that the cyclecar has upset every common belief in regard to the features of design and construction on which comfortable riding over rough roads depends. It is ordinarily held that a heavy car with a long wheelbase will be able to negotiate rough roads with less attendant discomfort to the passengers than will be the case with a smaller and lighter car; it is argued that the greater weight absorbs the shocks and jars before they are communicated to the occupants of the machine. This is true to a certain extent, but the more comfortable riding found in a heavy car is not due directly to the greater *total* weight, but rather to the greater proportion of sprung to unsprung weight. That is, the wheels, axles, differential, driving shaft, and the like, the weight of which is carried entirely on the tires, represent a certain mass of unsprung weight that is directly affected by the inequalities of the road. All of the remainder of the weight of the car, including body, frame, transmission, motor, and occupants, is mounted on the springs. If the unsprung weight is heavy and the spring-supported weight is light, the shocks imparted to the latter by travel over a rough road would be tremendous. When the reverse is the case, however, the *comparatively* small mass of the unsprung parts reacts through the springs against the much greater mass with but little effect on the latter. Therefore, as motorcycle wire wheels, light axle construction, and the elimination of the differential are features of cyclecar design, the unsprung mass is very small as compared with the spring-supported weight of the frame, body, motor, and occupants, and this results in a wonderful ease of riding that, it is claimed, is oftentimes not found on the most expensive cars when traveling over exceedingly rough roads.

There is another feature of cyclecar construction that is cited as a decided objection by many of its opponents, and that is the narrow tread. But if we are to have a car of minimum weight and cost, the tread must be narrow, for this makes possible the use of shorter and lighter axles and a smaller frame. Furthermore, instead of being forced to follow in the deep ruts of a country road, the cyclecar of 36, 40, or 48-inch tread is able to travel in the center or crown of the road, or to "straddle" one or the other of the ruts. In addition, the low center of gravity of the average cyclecar enables it to run on a sidehill or in a gully without danger of overturning, and if the tread be sufficiently narrow, the side of the road may be taken with ease whenever an obstacle is encountered in the center.


Mercury
Cyclecars
Mfgd. by
Mercury Cyclecar Co.
DETROIT MICH. U. S. A.

LEFT AND ABOVE: MERCURY Cyclecars in May, 1914. These prints were taken from glass plates still in the files of the original photographers, MANNING BROS. of Highland Park, Michigan.

Mercury $375.00

Complete Specifications

Motor—Special DeLuxe 9-13 H. P. Twin Cylinder. Bore 3.5", Stroke, 3.62". Displacement, 70.62 cu. in. Actual brake horse power at 2500 R. P. M., 13 H. P.

Lubrication—Improved splash system with gravity feed.

Ignition—High tension magneto or battery ignition.

Transmission—Special friction located under front seat. Roller and ball bearings used throughout. Friction wheel and friction disc 12" in diameter.

Front Axle—Tubular, supporting outer ends of front cross spring.

Rear Axle—Tubular, dead.

Steering—Special design of worm and split nut type.

Control—Friction release pedal operated by right foot. Friction wheel shifter lever operated by right hand. Service brake operated by left foot. Spark and throttle located on dash within easy reach of the driver's left hand.

Drive—Shaft from motor to jack shaft and 2½" V-belts from jack shaft to rear wheels.

Brakes—V-blocks in rear wheel pulleys operated by left foot.

Springs—Single cross spring in front and double cantilever springs in the rear. This latter type of spring is used throughout Europe on both light and heavy cars, and is noted for its easy riding qualities.

Wheels—Wire, with ball bearing hubs. Special Cyclecar design.

Tires—28"x2½" non-skid. Standard makes.

Wheel Base—100 inches.

Tread—36 inches.

Road Clearance—8 inches with load.

Frame—Made of well seasoned hardwood and armored with a heavy gauge of sheet metal. This frame is built integral with the body, and the annoying squeaks and rattles between frame and body, so peculiar to the average automobile, are entirely eliminated. This is the famous underslung type.

Body—Built of hardwood frame, over which is placed a heavy gauge of sheet metal. Built in three standard designs: The "Mercury Single," this is a single passenger car and is especially adapted to the man who wants business transportation only. This has a carrying space 28"x22", with a very graceful torpedo stern. Price $375.00.

The "Mercury Tandem" is built for the business man who sometimes finds it necessary to carry another passenger, or for pleasure. It is well adapted to either of these purposes and carries two passengers with comfort. Price $375.00.

The Mercury Delivery is built on the standard chassis and the front is identical with the Tandem model. Behind the driver's seat, however, is built a closed-in delivery body with rear doors. This has a carrying capacity of about 200 pounds.

Equipment—Three oil lamps and horn. Top, windshield and speedometer at a very little extra.

The Scripps-Booth "Rocket" Cyclecar

By Hugh Dolnar

The Scripps-Booth "Rocket" was designed by J. S. Booth and built at the Scripps Motor Works, Lincoln Avenue and M. C. R. R., Detroit, Mich., the construction beginning in May, 1913.

The "Rocket" Chassis Frame.

Obviously, with a light construction, every ounce of weight must serve all the purposes possible. The Rocket sheet-steel body is made to constitute a built-up girder, stiffened with wooden sills at the bottom, and with the cross-seat frame, so that an extremely strong construction for its weight is produced. The body has great depth, and is stiffened and given lengthwise strength at the bottom by the low placing of the wooden side frames. The body sides are high, giving the two passengers excellent side protection, and the entire weight of the body shell and seat frames is utilized to give girder strength.

By this construction, Mr. Booth first made sure of a stable support for his driving and carrying mechanism, so that he need have no fear of girder structural weakness at any point, and then proceeded to install an I-section steel front axle, with stub-axle at each end and one cross-placed half-elliptic spring to carry the body front-end, and two lengthwise placed half-elliptic springs, one on each side, outside of the body, to support the stationary rear axle.

The steering first adopted was wire cable and windlass and the steering wheel was placed in the rear of the front seat back, adapted for use by the rear-seated driver, who was thus given the great advantage of a full view of the whole length of his car. Back of the driver's seat an enclosed luggage compartment of ample room for two large bags and other luggage was fitted, access through the rear seat bottom by removing the seat cushion.

Power Plant a De Luxe Motor.

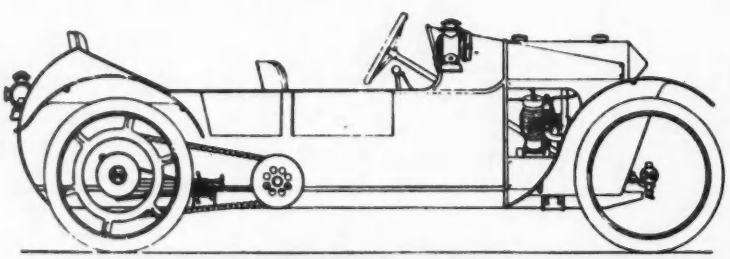
For his drive, Mr. Booth selected the De Luxe motor, four-cycle, air-cooled, two cylinders inclined to work on one crank, a chain sprocket on the crosswise placed crank shaft, and a chain drive planetary speed changing countershaft, having steel V-groove shives on its outer ends, with leather V-belts, very long from these front countershaft shives to the much longer V-groove shives fixed to the rear wheels, which run free on stationary axles.

The Scripps-Booth management began with the firm resolving to obtain the very best possible cyclecar, regardless of brawn and brain and time and treasure expenditure, and with the policy of accepting nothing whatever until its value was proven by long extended, actual performance under the most exacting conditions of everyday service.

First Model Given Severe Test.

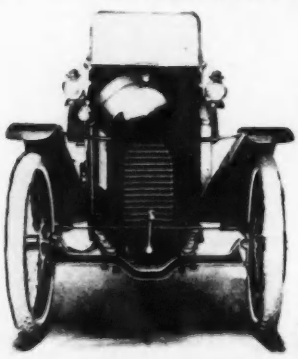
The first model built was given a 1000-mile test run by Mr. Booth, over Michigan, Indiana and Ohio roads, at an average speed of 17 m. p. h. The longest day's run was 201.7 miles starting at 7.00 A. M. and ending at 7.15 P. M., with stop from 12.00 to 12.35 and other stops, for gasoline and teams in narrow roadways, totalling about 25 minutes more or about one hour of lost time between start in morning and end at night. This was most excellent work for the maiden tour of a new car.

This first Rocket body had one side door only, opening to the front seat. Mr. Booth made a large number of mechanical conclusions on the 1000-mile tour, and upon his



The Scripps-Booth "Rocket" Cyclecar.

Tandem seats, driver in front seat, 100 in. wheel base, 8 in. road clearance, 36 in. gauge, wire wheels; front and rear tires pneumatic, 28 x 3 in.; weight, 650 lbs.; motor, 2 cylinder, 4 cycle, air cooled, 3¼ in. bore and about 3 11-16 in. stroke; 2500 r. p. m., B. H. P. 10 to 12 miles; speed to 50 miles; axle I-beam; four elliptic springs, not shown in illustration.



Narrowed front giving shortest turning radius and minimum wind resistance

return to the Scripps Motor shops re-designed the Rocket, as shown in the accompanying illustration and which represents the present Rocket model which will be first placed on sale.

Steering Mechanism.

The wire cables and windlass steering was changed to a spur gear pinion and sector action. The driver was placed in the front seat. The very convenient rear luggage compartment was, of course, retained. Many makers of cyclecars make no provision whatever for luggage carrying.

These changes embodied in the final model greatly improve the Rocket appearance, give short driving belts, a much more reliable steering action than the first tried wire cable and windlass.

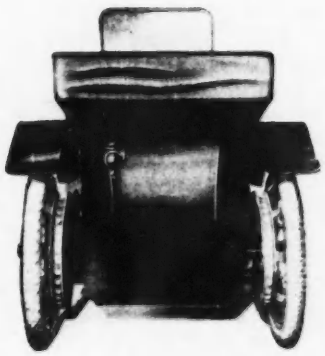
The front seat placing of the driver is in accordance with American practice. No differential is fitted at any point in the wheel drive.

The V-groove and belt action in turning a corner, as stated by Mr. Batterman, is as follows: The outer wheel turns the faster, becomes a driving element instead of a driven element, tightens the leather belt on the under side and by centrifugal action raises the belt in the wheel groove and so automatically delivers the belt to a larger radius of the countershaft shive, and hence does actually increase the virtual diameter of the shive on the outer side of the curve, so that in practice no sign of either belt-wear or tire-wear resulting from the non-existence of the countershaft differential gear is discoverable.

Equipment.

The Rocket is fitted with a windshield in front, and a regulation complete enclosure of folding top with side curtains, giving complete storm protection, while doors on one side, furnishing ready access to each seat, give convenient entrance and exit.

The lubricating oil tank is 1-gal. capacity and the gasoline tank holds 4½ gal. Both tanks are placed high enough to insure gravity flow.



Torpedo stern —
Roomy and enclosed luggage compartment

SPECIFICATIONS

The great motor event of 1914 is the advent of the cyclecar. It is a long-looked-for necessity because it fills a distinct and separate motor want. In the field of a two-passenger pleasure car or a single-seated light package delivery, the cyclecar—by reason of its light weight and great strength—gives extreme economy at low cost.

The Scripps-Booth Cyclecar enters full fledged into a commanding position. The product of a noted house and time tested through experimental stages, the Scripps-Booth presents a remarkable value in genuine mechanical merit and true cyclecar design. Read the following specifications and communicate with us:

Motor—Two-cylinder, air cooled, V type with 3½" bore by 3½" stroke. Develops 10-12 H. P. at normal speeds and 15 H. P. at 2600 R. P. M. Cylinders nickel plated, aluminum crank case spot finished. Valves mechanically operated. Large external flywheel. Cylinders positively cooled by powerful, 2 bladed, ball bearing fan. Hess-Bright ball bearings on crankshaft. Ignition—Atwater-Kent. Carburetor—Special Schebler with priming device operating from front seat. Motor starts without spinning. Crank handle attached in front. Lubrication—Gravity sight feed with splash circulation. Large sized muffler.

Control—Hand controlled spark and throttle. Accelerator. Foot brake. High, low and reverse by conventional control.

Transmission—The drive from the motor is through a flexible coupling, driving shaft and universal joint to the special Scripps-Booth 2-speed, forward and reverse Planetary Transmission thence to jack shaft by bevels. Transmission and bevel housing mounted in unit system. Transmission bands 6½" diam., 2" wide. Raybestos lined and system very quiet. Jack shaft and transmission runs on roller bearings, supplied with grease cups. Jack shaft runs at ½ engine speed.

Pulleys—8" diam. front, 15¾" diam. rear. Total reduction from motor to wheels, 5 to 1. Belt is V type, best quality. Adjustable belt tensioners and distance rods for rear axle.

Running Gear—Front axle, special Scripps-Booth I-beam drop forging, heat treated. Steering knuckles are heat treated drop forgings and have ball bearing action of exclusive design. Rear axle, tubular with electric welded spindles. Wheelbase 100". Tread 36". Clearance 9". Springs— 20" long, quarter elliptic made of vanadium steel, very flexible. Wheels—28" x 3" wire, dished type. Cup and cone ball bearings, nickel plated hub caps. Standard clincher tires. Brakes—8" internal expanding on rear wheels, Raybestos lined. Gasoline tank holds 4½ gallons. 35 to 45 miles per gallon. Oil capacity—1 gallon. Turning radius—35 foot circle. All speeds up to 45 m. p. h.

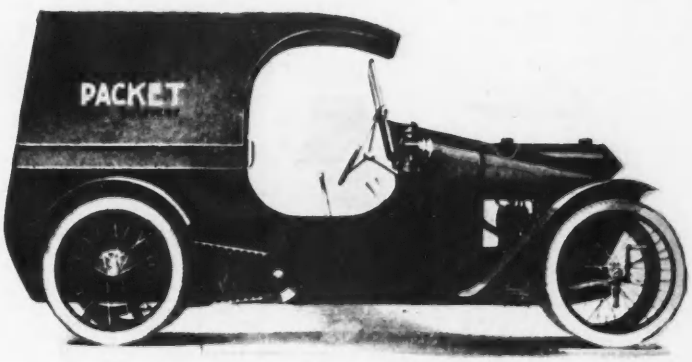
Body—Streamline, high sides, tandem seating, narrowed front. Two doors on right side. Body of metal with armored wood sills. The rocket shaped hood and the rounded torpedo stern gives a very racy and smart appearance. Seats 22" wide, 15" deep. 30" leg room from front of seat to dash. COLOR—Gray with black moulding, finely finished. All metal parts nickeled. UPHOLSTERY—Black, waterproof. FENDERS—Baked black enamel. Body equipped with spare tire holder. Roomy and enclosed luggage space at rear of car.

Equipment—The standard equipment consists of an adjustable windshield finished in black and nickel, three lamps, horn and tool kit. Extras—Storage battery or gas tanks for lights. One-man top with side curtains and irons—$15.00. Speedometer. $12.00. Weight, complete, 750 pounds.

Prices—"Rocket," two-passenger model, complete with standard equipment, $385.00, F. O. B. Detroit. "Packet," one-passenger light package delivery with closed body; has heavier rear springs to carry 350 pounds merchandise; enclosed dimensions: 38 cu. feet; with standard equipment, $395.00, F. O. B. Detroit.

Guarantee—We guarantee the Scripps-Booth Cyclecar to be free from imperfections of material or workmanship for one year from date of purchase. Any parts proving defective during this period will be replaced free of charge providing they are shipped us prepaid for our examination and are not the result of accidents or willful neglect.

Scripps-Booth Cyclecar Company
Detroit, Michigan



PROSPECTUS
of
Woods Mobilette Company
America's First Cycle-car

Executive and Business Offices
Suite 1001, 189 West Madison Street
Chicago, Illinois

Salesroom and Temporary Factory
1509 South Michigan Boulevard
Chicago, Illinois

Financial Agents
W. M. SHERIDAN & CO. (Inc.)
Eleventh Floor, Security Building
S. E. Cor. Fifth Ave. & Madison St.
Chicago, Illinois

Cycle-cars a Necessity

The Motor Car Industry is a new creation, practically in its infancy, that has radically changed nearly all of the human activities.

First we had the Automobile, which was dubbed "a luxury of the rich." Some motor-driven vehicle had to supply the demand of the poorer classes and inventors designed the motorcycle, which manufacturers put on the market at great profit to themselves.

Something "in between" the automobile and motorcycle is absolutely essential for business purposes as well as for pleasure. France and England were first to recognize this necessity, and supplied it with the cycle-car.

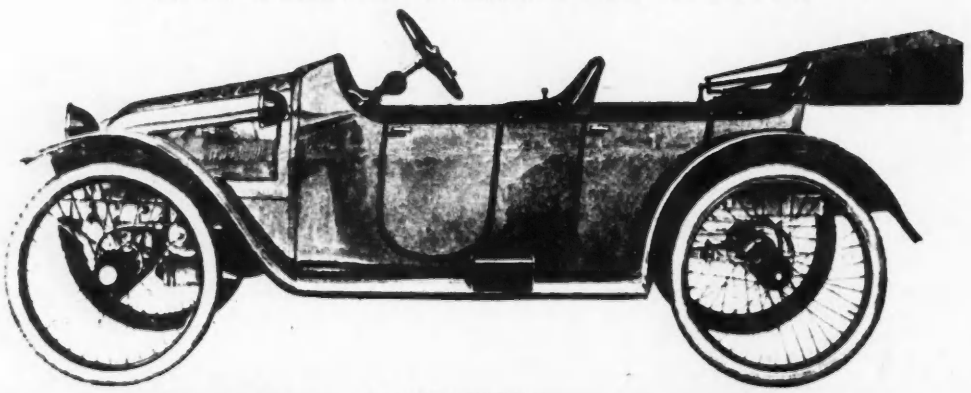
Originally, when the automobile made its appearance, France led the world in the production of high-grade cars. France had several years' start of the United States. Today our cars are superior to the foreign makes, cost less money and our imports of automobiles have been reduced to almost nothing, while our exports are many times greater than our imports formerly were.

Both for practical use and for pleasure purposes, the automobile finds a much greater market in the United States than anywhere else on the globe, and for the very reasons that the automobile became popular the cycle-car will become more popular. In addition to these reasons there are, of course, many that are possessed exclusively by the cycle-car.

There are millions of people who can ill afford to buy even the cheapest of standard-gauge automobiles on account of the necessarily heavy expense of upkeep, but who can readily afford to purchase a cycle-car, the upkeep of which would hardly exceed one's daily street car fares.

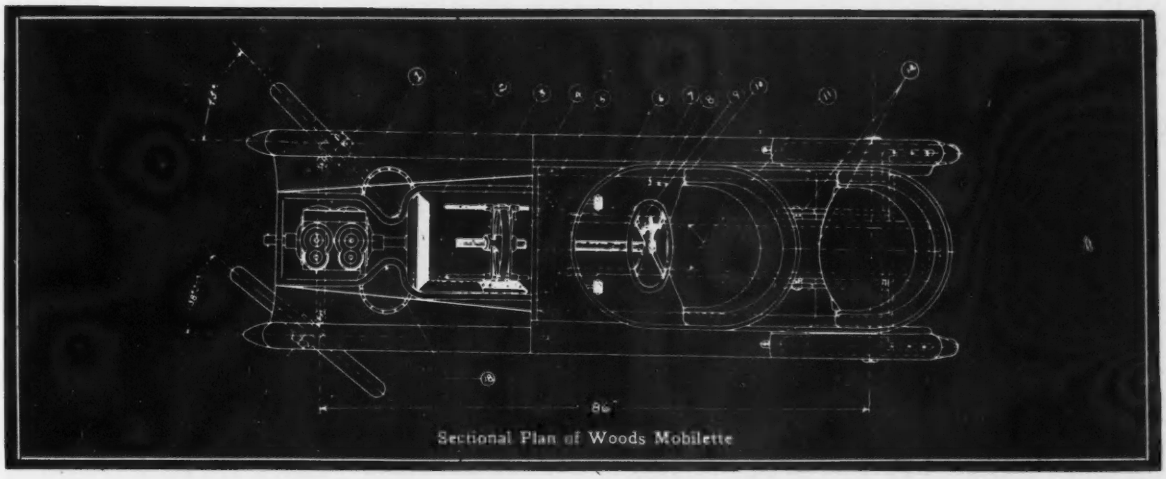
That the probable effect of the cycle-car industry upon the public in all respects may be more easily comprehended, we will illustrate by referring to the effect that the automobile had upon business and society in general, and it only need be borne in mind that, great as the influence of the automobile has been, that influence is nevertheless limited as compared with the very evident enlarged influence and effect the manufacture of the cycle-car must have upon the public at large.

WOODS MOBILETTE—AMERICA'S FIRST CYCLE-CAR

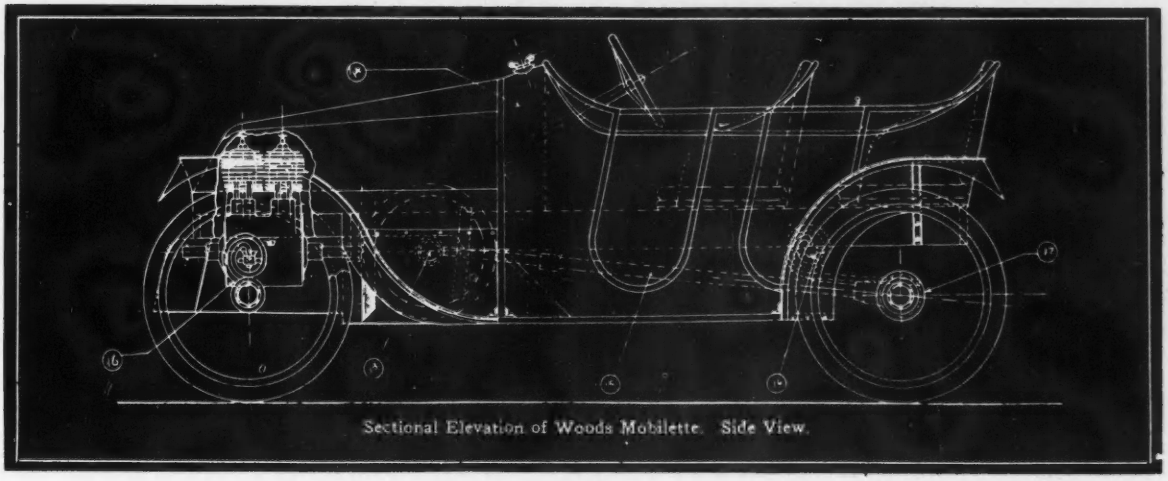


7 feet 2 inches wheel base

Side view of Woods Mobilette. The pressed steel body is easily detached with rear seat and delivery or package box substituted. Note the beautiful lines and general shape of this little car. It is the ideal car for all classes and all purposes excepting very heavy truck or freight work. For beauty, economy, pleasure or light business purposes it has absolutely no equal and costs $200 to $400 less than the lowest priced automobiles that are its inferior.



Sectional Plan of Woods Mobilette



Sectional Elevation of Woods Mobilette. Side View.

Comment of Mechanical Engineers

The running board and flace boards, fenders and splash guards of WOODS MOBILETTE are each formed of special sheet steel, thereby eliminating the riveted, noisy type so generally used; all securely held to main frame by drop-forged steel arms. Body is of pressed steel, strongly braced and ribbed, and so constructed that rear seat is detachable to install delivery box instead. Upholstered leather seats.

Heavy steering wheel and column; frame is looped in as shown in drawing at No. 18, so that a full 45-degree turn is possible with this car, enabling driver to turn at one sweep of wheel in ordinary city streets.

The general design is plainly visible from the drawings, which show the graceful lines and compactness.

From the description it is also clear that this is the most simple car in the country to operate.

Free from complicated adjustments, and absolutely as noiseless as modern science can construct; powerful beyond any requirements needed.

So light, yet so flexible is the car, that the wear on tires is the least of the expense. This means that 5,000 or more miles' extra service is possible from one set of tires than is obtainable from any other known vehicle.

The motor is free from all unnecessary reciprocating parts and is as simple as a motorcycle engine. Air-cooled, thereby eliminating freezing and radiator troubles.

A roomy body, comfortable and as easy riding as a railway Pullman car.

A car that will give prestige to any merchant, plus hundreds of dollars in clear saving of time and expense.

For pleasure riding and touring it will have no equal.

A car that will give you service 365 days a year. In conclusion, as compact, efficient and sturdy a car as the human mind has or ever will develop, backed by brains and practical men long trained in this particular field.

WOODS MOBILETTES—Model No. 2—are now being built and will soon be ready for delivery.

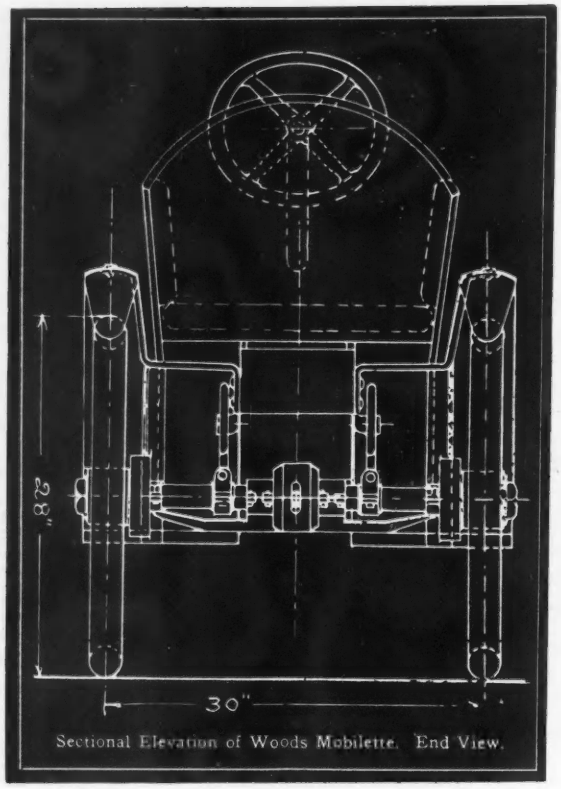
Terms to sales agents will be furnished upon request.

The price of the car without embellishments will be about $350, with small additional cost for extras. Ask us about this.

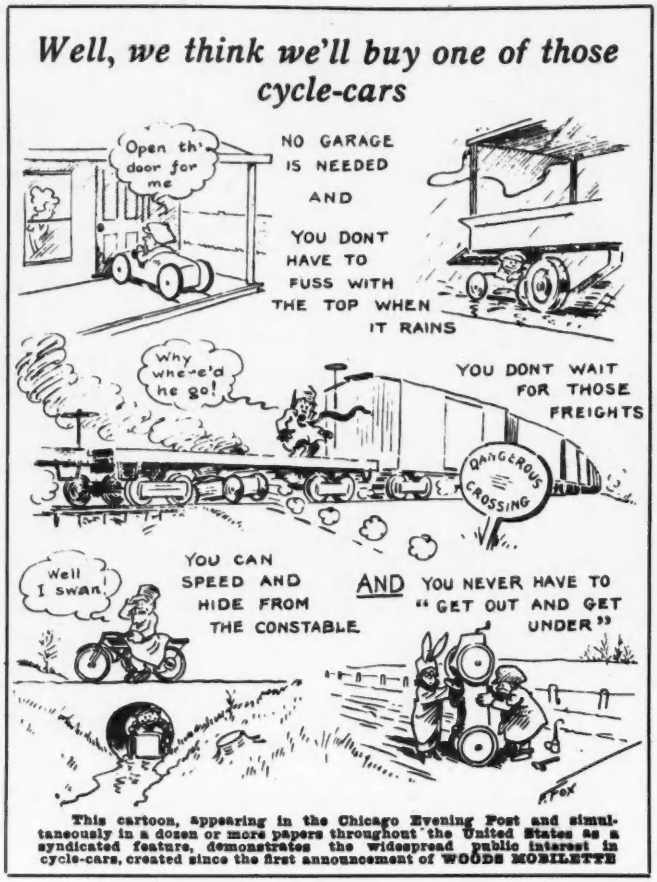
We may consider selling state rights to manufacture, including selling agency rights, in states other than Illinois, Indiana, Iowa and Wisconsin, but in these four states we can only consider sub-selling agency rights.

continued next page

WOODS MOBILETTE *continued*



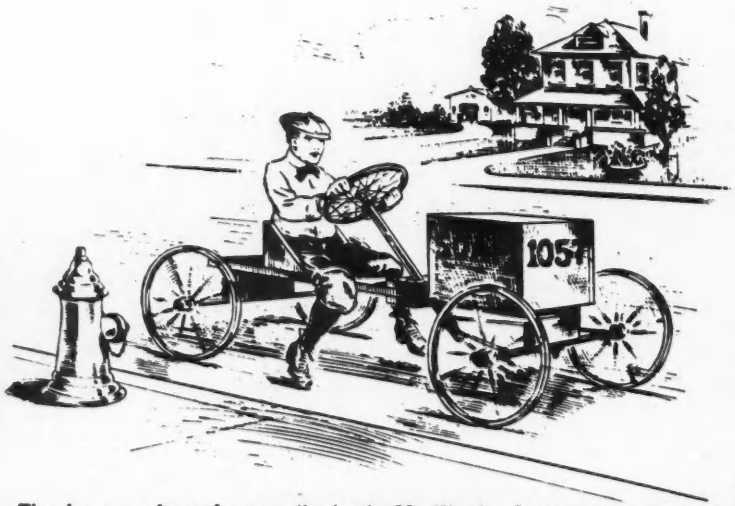
Sectional Elevation of Woods Mobilette. End View.


Well, we think we'll buy one of those cycle-cars
Open th' door for me
NO GARAGE IS NEEDED AND YOU DONT HAVE TO FUSS WITH THE TOP WHEN IT RAINS
Why whe-e'd he go!
YOU DONT WAIT FOR THOSE FREIGHTS
DANGEROUS CROSSING
Well I swan!
YOU CAN SPEED AND HIDE FROM THE CONSTABLE
AND YOU NEVER HAVE TO "GET OUT AND GET UNDER"
R. FOX

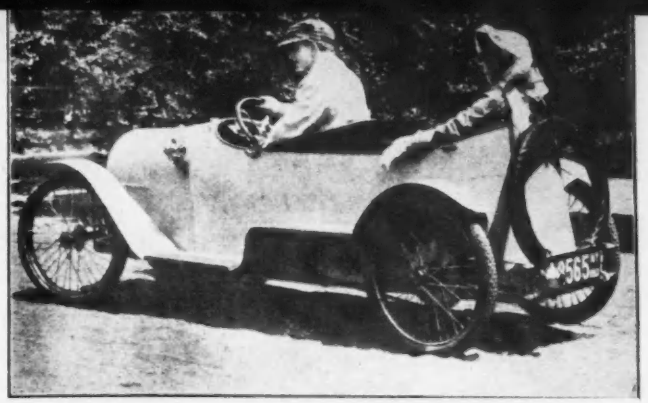
This cartoon, appearing in the Chicago Evening Post and simultaneously in a dozen or more papers throughout the United States as a syndicated feature, demonstrates the widespread public interest in cycle-cars, created since the first announcement of WOODS MOBILETTE

FRANCIS A. WOODS
Inventor and President of Woods Mobilette Company

HERE IS WHERE THE IDEA EMANATED FROM.



The above was drawn from recollection by Mr. Woods. It shows from whence he got his idea for a Cycle-car.



The Smaller of the Two Twombly Models Presents Simple and Attractive Lines.

CYCLECARS *in Action*

The Comet Cyclecar.
Two-cylinder motor; belt drive; 100-in. wheelbase; 36-in. tread; price $400.

RIGHT, TOP: An early attempt to turn a FORD into a Cyclecar. CENTER: Buzz Rademacher's modified 1914 Woods Mobilette. BELOW: Joe Ebert's 1915 SPACKE.

PERSONAL RECOLLECTIONS OF CYCLECARS

by Prof. A. M. Low

On motorcycles I have tried everything from steam drive in 1909 to rockets in 1949. But nothing equalled the strangest of the three (mostly four when they all stayed on) wheelers of the early days. One of the first was the French-built BEDELIA. The passenger sat in front, just behind a single cylinder, air cooled engine, and the driver in tandem behind. The two diameter belt pulleys were amidships and the clutch was simple. One merely pushed a lever and the back axle moved forward. Pushing farther brought the belt rims into violent contact with brake blocks on the side of the vehicle. To change gear we slackened the belts, leaned over the side clutching a piece of wood and flipped the belt from one pulley to another.

Steering was by the popular "cotton reel" method. I once had the "cotton reel" break and my passenger was shot into the hedge looking exactly like an advertisement in a ladies' magazine, although nylon was not then invented. Not quite so trying for me as when in a single seater A.V. the hammock seat broke and only by quickly putting my elbows over the side did I prevent my person being ground off by the road.

BEDELIAS were raced at Brooklands by Bourbeau, who achieved vast speeds of over 50 miles per hour, with a big black beard streaming into the wind. I designed one of these machines with a "forced induction" engine and when (about 15 years later) "blown" DARRACQS finished 1-2-3 in a 200 mile event, I thought that my early attempts had not been in vain.

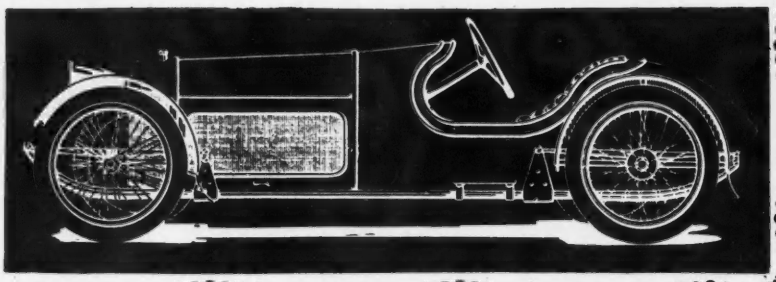
I was the proud possessor of various machines at different times, including an A.C., a G.W.K. and my splendid ADAMSON. It had a twin engine, an illegal spotlight and was long, low and rakish. True, a belt broke outside a house in the middle of the night when I did not want to advertise my presence, and equally true that I once sent a telegram to the makers concerning their gearbox to the effect that "the tooth" had broken. But it was a grand apparatus.

I must not give the impression that every machine was inefficient or that the early small cars were too bad. Outstanding is the fact that these early machines were good in principle. They killed at a blow the idea that only roaring '40s were of value. They were the eggs from which the modern light car was hatched.

**These are excerpts from an article in the 1953 British Automobile Racing Club "Year Book," describing the early days of that important club which began life, in 1912, as "The Cyclecar Club."*

La Vigne Cyclecars for 1914

Much Cheaper Than Horse and Wagon



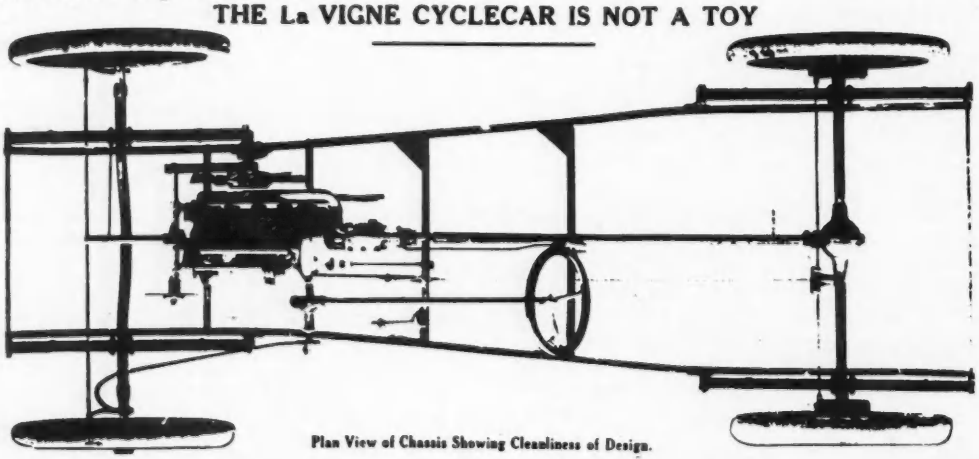
La Vigne Cyclecar Company, Detroit, Michigan, U. S. A.

IN bringing out the La VIGNE CYCLECAR, we feel that we have produced a car which will meet with all the requirements, of the great masses who desire a small light car which will stand up, will travel 30 to 40 miles to a gallon of Gasoline, is low in Tire Up-keep, and is of Beautiful Design, while the Initial Cost is WITHIN THE REACH OF ALL.

In the Design of this Car, as you will note from the Specifications, we have followed the Ideas which have proven the best in Large Car practice, and are best adapted to American road conditions.

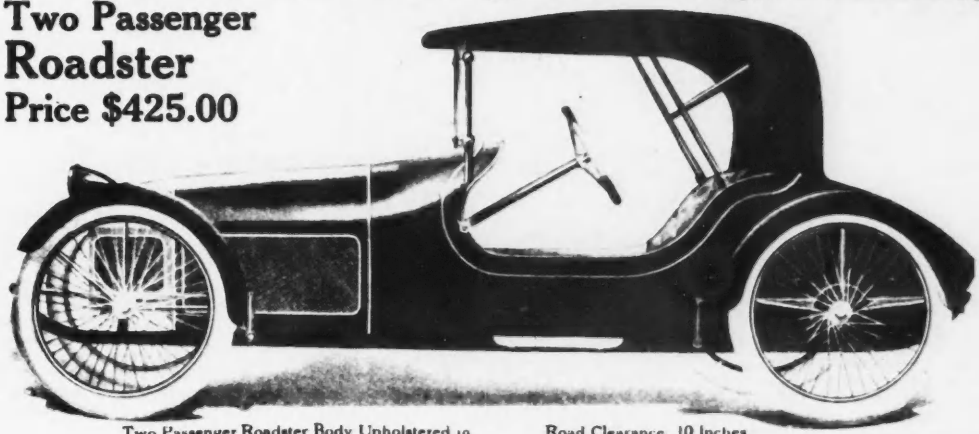
A glance at the Specifications will convince you that the La VIGNE CYCLECAR has features which are Found only in the cars of the High Price Class. Such things as Worm Drive Rear Axle, Unit Power Plant Sliding Gear Transmission and Multiple-Disc Clutch, these are all High Class Features.

THE La VIGNE CYCLECAR IS NOT A TOY



Plan View of Chassis Showing Cleanliness of Design.

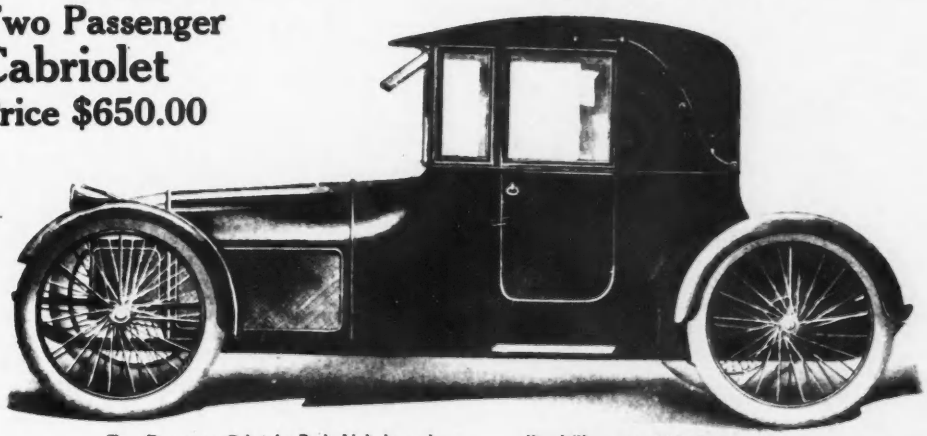
Two Passenger Roadster
Price $425.00



Two Passenger Roadster Body Upholstered in Smooth Black Leather. Seat 39 inches wide. Wheelbase: 96 inches.

Road Clearance, 10 Inches.
Weight Complete 650 Pounds.
Top and Windshield $35.00 Extra.

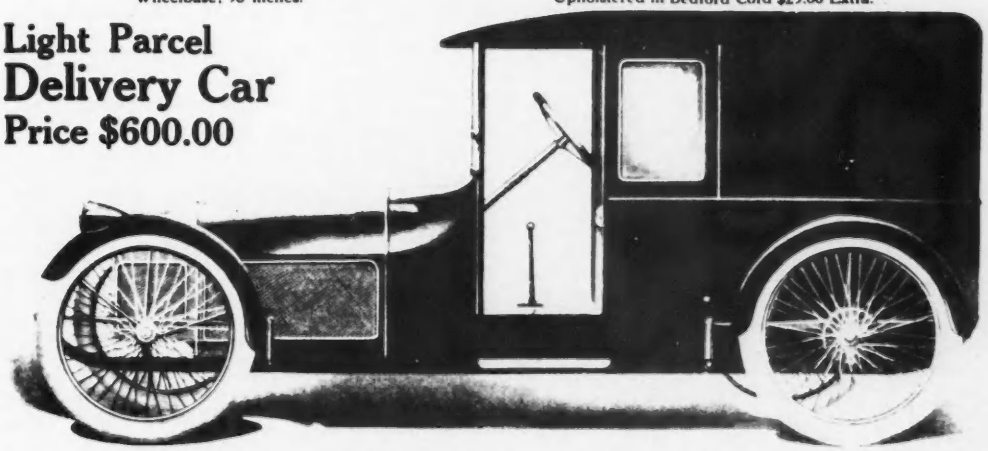
Two Passenger Cabriolet
Price $650.00



Two Passenger Cabriolet Body Upholstered in Smooth Black Leather.
Wheelbase; 96 inches.

Road Clearance; 10 Inches.
Weight Complete 750 Pounds.
Upholstered in Bedford Cord $25.00 Extra.

Light Parcel Delivery Car
Price $600.00



Delivery Body. Carrying Space 40 inches high, 32 inches deep, 36 inches wide.
Capacity 400 l bs

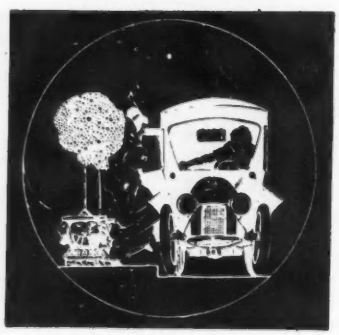
Wheelbase; 96 Inches.
Road Clearance; 10 Inches.
Weight Complete 800 Pounds.

New Cyclecar Designs Show Some Bad Features

By E. S. Foljambe

THE manufacturers are going into the cyclecar field in much the same way that they attacked the early automobile problems. In those days groping in the dark was necessary, but at the present time with thirteen years of experience back of them, designers should be able to more quickly bring out what might be termed an ultimate design.

At least they should not put out half-baked designs which must immediately be changed in order to be practicable and serviceable.



The Price.

In the first place, the price of the cyclecar must be kept at a sufficient distance below the full-width tread four-cylinder cars, or light-weight automobiles which are coming on the market. In other words, the price must be kept in the motorcycle class, or there will be no market for them. If it is possible for a manufacturer to turn out a four-cylinder, 20 to 30 h. p. car with a two speed and reverse transmission, and shaft drive of standard tread, and a wheelbase approximately 100 in., that will stand up and sell for $400 or under, it should be possible for the cyclecar maker to turn out a narrow tread, lightweight two-cylinder vehicle of simple drive, for $300, and unless there is at least this much difference the field for such a vehicle will be extremely limited. So much for price.

Simplicity of construction is an absolute essential; differentials, gears as far as possible, and weight must be reduced to the minimum. Comfort must to some degree be sacrificed as compared to the larger car, but the purchaser of a two-cylinder car does not expect to obtain for his money a vehicle suitable for extended touring, although, of course, such a thing is possible if one cares to put up with the hardships inseparable from such a trip, and a cross-continental trip will probably soon be pulled off by some of the makers.

The belts which are usually too long cannot help but stretch rapidly, which will cause a slapping and a rapid wear of the jack shaft bearings. Motorcycle experience has shown that a small pulley with V belt is not satisfactory at high speeds, yet some of the foremost cyclecar makers are doing this same thing.

Tandem vs. Sociable Seating.

Although a few women have ridden motorcycles, or have consented to perch themselves at the rear, this is not a sign that tandem seating is desirable. The ability of a machine to pass through a 36 in. door should not carry such weight as to override and overrule a comfortable seating arrangement. The doorways of houses are, as a rule, inaccessible to any such vehicle, due to steps, porches, etc. Doorways of sheds or barns are usually wide enough, and certainly any man who could afford to pay $350 for an outfit, could afford $10 to widen his gate if necessary. It is true that such a machine might pass into an office building, but even here the insurance rates would be immediately raised if turned into a garage. It does not seem conceivable that the ultimate, successful cyclecar will have a tandem seating arrangement. Sociable seating is very much to be preferred, and in the opinion of the writer will be the ultimate standard for the cyclecar. Even with sociable seating the seats can be slightly staggered, giving plenty of elbow room for the operator to work his levers, and the vehicle as a whole need not have over 40 to 44 in. tread with this arrangement. With tandem seating the vehicle has to be of very long wheelbase, and in order to keep the center of gravity low enough to prevent overturning on curves, the seats have to be almost on the ground. Such an extremely low position is not as a rule enjoyable. With sociable seating and 40 to 44 in. tread, the seats can be raised somewhat higher without losing stability.

Seat Accessibility and Foot Room.

The vehicle should be made accessible to the occupants. Some of those already on the market are so high sided that it will be impossible for a woman in a modern skirt to get into it. The tandem seated vehicles often have the rear seat lower, or as low as the front seat, and where the driver sits at the front, and is usually a man, his superior height cuts off entirely the road view of the fair occupant at the rear. Some machines are even so constructed that the lady has to straddle back of the seat occupied by the operator, in what must be a very uncomfortable position with insufficient foot room.

The body designs are some of them very graceful, having stream line form, but there are others. Many of these seem to be made up of three distinct units grouped together on the chassis, and these units certainly do not understand the value of team work, having apparently no relation whatever to each other. The hood is one unit, the cowl and portion corresponding to the foredoor the second unit, and the seat and rear end form the third unit. This gives a botchy, patched up appearance that is anything but pleasing, and should be avoided. The motoring public to-day are accustomed to sightly vehicles, and there is no reason why cyclecar designers should not turn out as good looking cars as another class of designers.

A Dangerous Design.

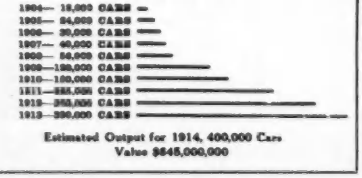
Many of the mechanical features are open to criticism, and there will undoubtedly be some serious accidents which might and should be avoided, and which if they occur will be entirely the fault of the designers. Wheels should be so mounted that they can by no possible chance in ordinary service break loose from the vehicle, yet there are examples already on the market in which the wheels are actually mounted on the ends of springs with nothing whatever to hold them if a spring should break. Spring breakage is not an uncommon occurrence, and is a thing which cannot be entirely avoided. It is nothing less than criminal to mount a wheel with no other connections than the small end of a spring.

Three vs. Four Wheels.

The question of three or four wheels also comes up, when a lightweight, cheap construction is under consideration. In America at least, the three-wheeled vehicle has never had any success. In Europe, on macadam it has proved more or less popular, especially in Germany. There is a strong feeling against a three-wheeled vehicle in this country, and the public has repeatedly shown its preference for a four-wheeler. Makers will do well to respect to this extent public opinion, which has again and again made itself felt, and felt so strongly as to completely put out of business the maker who overlooked it. Four wheels then, are to be chosen, if public sentiment is to enter into the matter. Wheel hubs are not wide enough to stand side strains. Motorcycle wheels are not wide enough in the hubs for cyclecar work.

Some of the makers are putting out wheels with nickel-plated spokes and hubs. The

Estimated Number of Automobiles Manufactured in America During the Past Ten Years

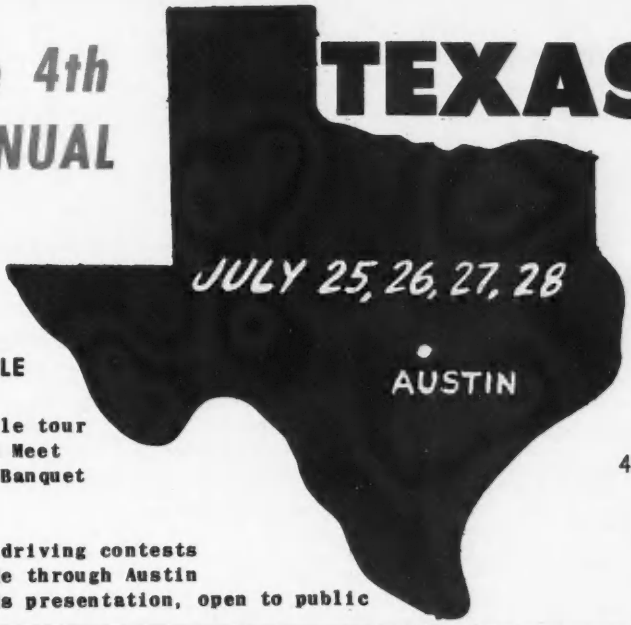


Estimated Output for 1914, 400,000 Cars
Value $645,000,000

COMING SOON!

The 4th ANNUAL

TEXAS TOUR



PROPOSED SCHEDULE

FRIDAY:

Morning	40 mile tour
Afternoon	Field Meet
Evening	Tour Banquet

SATURDAY:

Morning	More driving contests
Afternoon	Parade through Austin
Evening	Awards presentation, open to public

FOR DETAILS WRITE

4th TEXAS TOUR

Box 110-A
Bee Cave Road
Austin 4, Texas

wire wheel is difficult enough to keep in condition, without having to fight the rusting of the nickel-plated surface. Some non-tarnishing finish should be used, or the wheels enameled, so that they can be more easily kept clean.

The Steering Gear.

The steering gear connections must be sufficiently rigid to stand the racking which will inevitably take place over rough roads. Nowhere is there greater danger to life and limb than in the steering connections. If these give way the results are almost always fatal. As the writer has before pointed out in other articles, the effort to make these cars cheap and get away from worm and gear, or nut and screw steering, has led to the adoption of some very flimsy constructions which should never be allowed on any motor-driven vehicle. Direct connections by levers of suitable size, with the wheels well castered is much to be preferred if well tried and standard constructions cannot be used.

There must be sufficient road clearance, as the small diameter wheels when they do drop into a rut bring the body very close to the ground. This again is a reason why wider tread and slightly higher seating arrangement should be used. Although cyclecars are not primarily intended for use on country roads, owners will use them there and some very bad roads will have to be negotiated occasionally. The vehicle which can do this successfully will be the machine to win out in the end.

Quietness is also an essential. This is merely a matter of the well designed and sufficiently large muffler, and this most important part of the mechanism should not at any time be placed in front of the occupants. In this position the splash from the road cannot help but cause fumes and odors which will be driven back into the faces of those occupying the vehicle, to say nothing of the fact that with certain wind and weather conditions, the exhaust gases themselves will be blown into the faces of the riders. The engine should also be protected from the splash and should therefore, if a front placing is used, be covered by a hood.

Another error that is being made by a few of the cyclecar makers is that of insufficient gasoline capacity. Because the vehicle is small and will do forty miles on the gallon, is no sign that it should be limited to one day's supply of fuel. There is no greater nuisance than to have to be always filling the tank. A little car of this kind should have gasoline capacity for at least three days' running, let us say five to six gallons.

Reverse Necessary.

In this country it is recognized that the cyclecar must be of very low price or it will come into direct competition with low priced American cars which are real automobiles. This means that the true cyclecar must be stripped down to the fewest possible elements. In Europe a few have been put upon the market without a reverse, or in fact without any form of transmission, the engine being direct connected by belts or some form of clutch which can readily be slipped. The writer believes, however, that a reverse is absolutely essential, otherwise in traffic when the vehicle ahead suddenly backs up, the cyclecar operator would have to jump out in the mud, grab his vehicle by hand, and push it out of danger. The friction transmission when used in its simplest form, that is the disc and wheel, offers a ready solution of this question, by supplying a cheap, comparatively lightweight transmission, giving all speeds forward and reverse. If the excessively long belt is to be done away with a silent chain might be used as the final drive. Variable sized pulleys might also be used where a cheap change speed mechanism is desired, but again these offer no means of reversing, but might be used in connection with a separate reversing mechanism.

One-Wheel Drive on Simplest Cyclecar.

The differential is a feature which is not essential. With chain drive, however, to both rear wheels it would have to be used, but why drive both rear wheels on a vehicle of 400 lbs. or less in weight? Motorcycles with sidecar attachments weighing all of this and more, are driven successfully from a single wheel. The writer sees no reason why the simplest form of cyclecar could not be chain-driven successfully from one rear wheel.

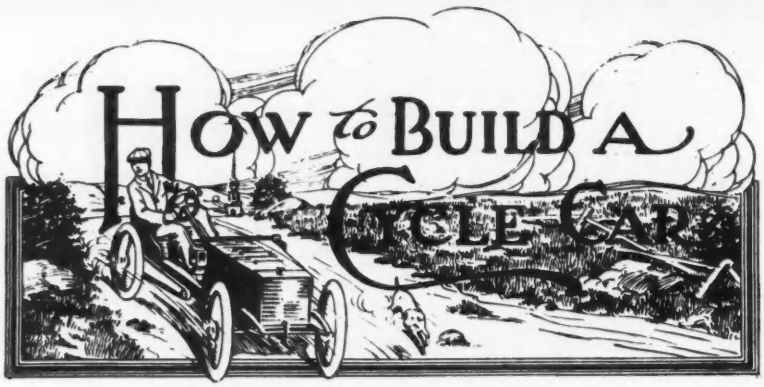
The power plant in such a cheap, lightweight construction must be small and the two-cylinder, air-cooled engine already well developed lends itself readily to this purpose. Very small four-cylinder en bloc motors which are water cooled will unquestionably be in vogue for cars of a little higher grade and price, but for the simplest, lowest priced vehicle the two-cylinder engine is all sufficient. The writer's personal preference is for a two cylinder opposed motor which is a very much sweeter running and smoother proposition than any V engine can ever be, but as there has been no type of vehicle using such a small engine of this construction, there are, of course, practically no such engines on the open market, and for a while therefore the V type of engine will dominate the extremely low priced cyclecar, to give way to a certain extent, in the course of development, to the American type of two-cylinder opposed motor placed lengthwise of the vehicle.

The axles, steering gear connections, etc., must be staunch and therefore of weight. The frame, body, seats, and other parts, however, can be extremely light, and thus the total weight kept well within limits.

The discussion at the present time as to the future of the cyclecar is waged on all sides, many believing that there is no field whatever for these little cars. It is the firm conviction of the writer on this subject that American ingenuity, American capital, and American factory methods will eventually evolve vehicles which will retail at or near $300, and be capable of carrying two passengers in comparative comfort, over comparatively bad roads. This is not to the exclusion of the motorcycle, as there will always be a bunch of young bloods who will prefer the individual mount.

The dividing line between the light car and cyclecar is and will in all probability continue to be hard to define. Some cyclecar makers will add to and enlarge their cars, thus getting into the light car class while others will strive for cheapness, simplicity and quantity production, bringing them into the true cyclecar class.

However, now is the time for discussion, and by free and open expression opinion is moulded, the wheat sifted from the chaff, and the practical, efficient and popular design determined upon.



by Thomas Stanley Curtis.

SIMPLICITY has been the aim throughout in the planning of the little car* to be described, for it is realized that special forgings and even castings of intricate parts, while not actually beyond the amateur mechanic, are still formidable to contemplate, and, as our car is to be strictly a home product, with the possible exception of engine and wheels, every effort has been made to incorporate only those fittings which might be easily obtained. It is fully realized that the design has many shortcomings and the builder who is capable of better things will certainly not use a wrought iron pipe tee when he can just as well employ a forging. To such a builder, the author merely offers the design as a broad, general suggestion in the hope that it may prove of some assistance in the working out of something better.

The tools actually required for the construction of our car are comparatively few and simple. The possession of a lathe is a fortunate one, but the amateur who has access to a near-by machine shop need not hesitate to undertake the work, even though he has no lathe of his own. The machine work on the car is very simple and therefore inexpensive, even if done on a time basis in a shop. The principal requisites are a fairly good set of carpenters' tools, a pipe vise and cutter, as well as a set of pipe dies, an assortment of metal drills, a substantial breast drill with chain for tension, a hack saw, files, wrenches, etc. The pipe fitting tools may even be dispensed with if the machine shop is close at hand, for all the threading can be done better in the enginee lathe.

The workshop should preferably be spacious; a barn or carriage house is excellent. It is very likely, however, that the place to be used for the final housing of the car will have to answer the purpose. While the author may be accused of using chestnuts, still, it seems advisable to repeat the time-worn story of the chap who built his boat in the cellar and then had to tear out the side of the house in order to get his handiwork to the water. The moral of this, as applied to our workman, is not so much that he could not get the car out of the cellar, but why build it there when he would only have to provide a place subsequently for its storage? If it is necessary to build a garage of some sort, far better it is to build the house before starting the car.

Constructional Features

A brief inspection of the drawings will disclose the fact that this is essentially a car without springs. The construction is so simplified through the elimination of the conventional spring that the loss of this important member is believed to be justified. At the same time, if the complications arising through the introduction of semi-elliptic springs, particularly at the steering gear, can be tolerated, the builder is by all means advised to insert them. As it appears in the drawings, however, the car has certain spring qualities inherent in its construction. The members which support the weight of passenger, body and engine, are struts of ash and obviously they form springs in themselves. The body and hood of the car stiffen the struts to such an extent that they bend only at points near the center.

The wheels are of the standard motorcycle type or even substantial bicycle wheels, if the latter are the more readily obtained. Steering is accomplished through the usual knuckle arrangement, which has many advantages over the method in which the entire front axle turns. The drive to the rear wheels is by means of belts which are arranged in such a manner that they may be tightened through the agency of idlers controlled by a convenient lever. Braking is accomplished by tightening a piece of steel cable around a pulley affixed to the hub of each of the rear wheels, the brakes being applied by a foot pedal.

The differential gear was omitted owing to its complexity and not through lack of recognition of its great importance. The narrow tread of our car, together with the fact that in turning a corner the driver would naturally ease up on the driving idler in order to reduce the speed, will serve to make up for the omission, and the absence of the differential will scarcely be felt.

While the design shows but a single seat, the chassis is sufficiently substantial for two passengers. While the double seat may be of the side-by-side variety, the tandem arrangement is strongly advised in order that the weight may be kept well centered. In the event of tandem seating, the "body" proper can be dispensed with and two light seats mounted, one in front of the other, directly upon the struts, by means of steel rods forming the legs of low chairs, as it were.

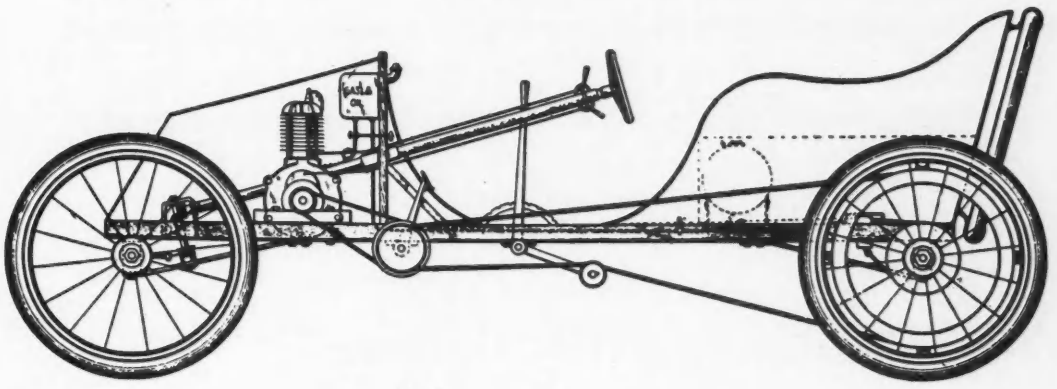
With the foregoing description of the car and its general characteristics, it is assumed that the reader will by this time have a fairly good conception of the various drawings, and we shall accordingly turn our attention to the details of the parts in the order of their assembly. Very few dimensions are given, as it is believed that they are confusing, as a rule, and not conducive to a thorough understanding of the construction. The drawings are all to absolute scale, however, and the scale at the bottom of the drawings is appended in order that it may be cut out of the page and used upon the reproduction to serve the purpose of a rule.

Details of the Chassis

The basis of the chassis is a group of four struts of 2 x 2 inch ash, 96 inches long. These timbers should be very thoroughly seasoned and perfectly straight when they come from the mill, where they shquld be planed or sanded and cut to the finished size.

The axles upon which the struts are mounted are of maple and cut to size at the mill. The front axle is of 2 x 3 inch stock, 26 inches long. The rear axle is of 2 x 4, 28½ inches long and divided through its center as shown in Plate II, Fig. 2. Through the center is bored a hole to take the axle proper, which is of one-inch wrought iron pipe. This pipe measures slightly more than 1¼ inches on the outside, and, as the reader probably knows, the one-inch applies as a pipe size rather than as a dimension.

SIDE VIEW



Scale

PLATE III.

PLAN VIEW

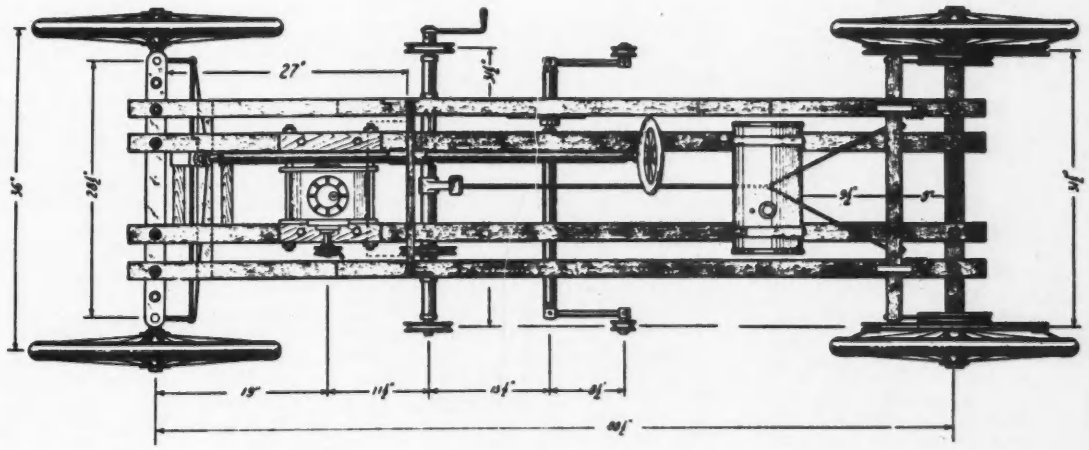
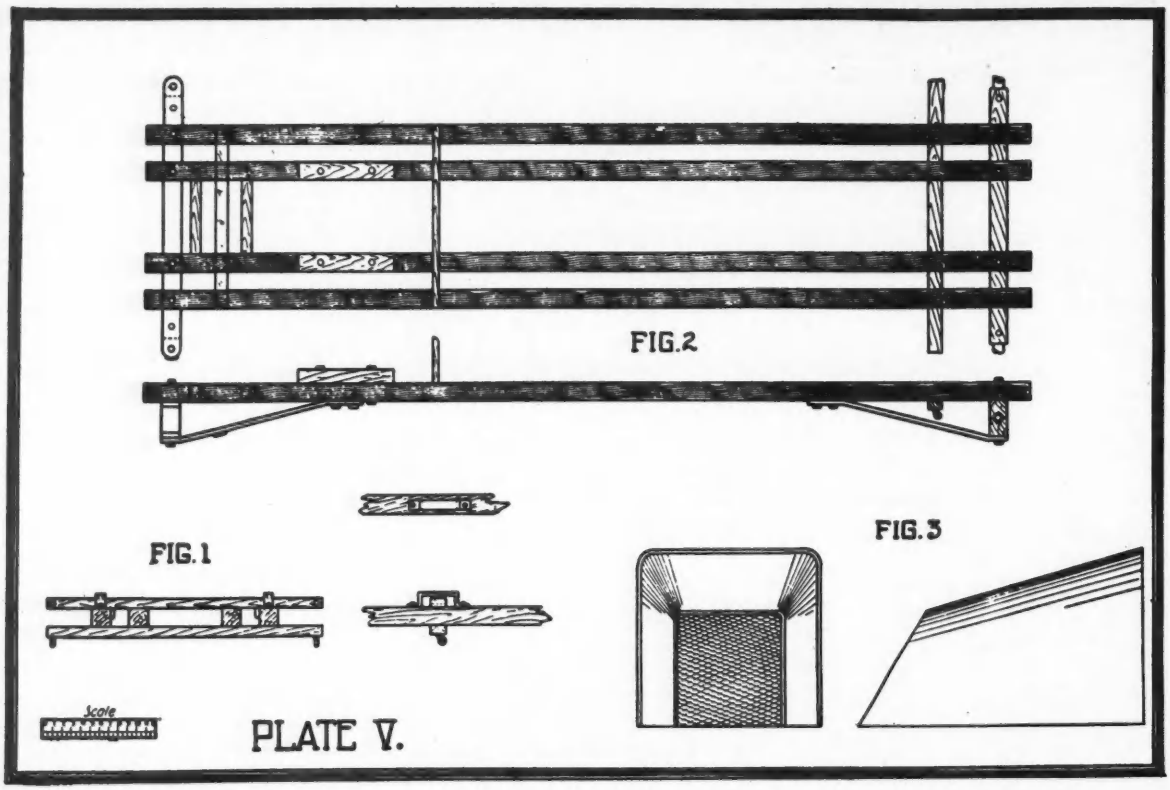


PLATE IV.

continued next page



The inside dimension of the pipe is practically an inch. The rear axle, combining pipe and wood, is secured to the struts by means of bolts passing through strut, wooden piece, and pipe. A brace of half-inch cold rolled steel stiffens the axles, both front and rear, as shown in the side elevation, Plate III.

With reference to Plate VI., Figs. 1 and 2 show the details of the steering knuckles. The front axle carries, on its top and bottom, bars of cold rolled steel ½ inch thick, which extend beyond the ends of the wooden piece to form the bearings for the knuckles which carry the wheels. These knuckles are made up of one-inch wrought iron pipe tees, lined with nipples, and fitted with the extensions of the axles of the wheels. The steering gear proper is shown in Fig. 2, which discloses the method by which the steering wheel operates a drum upon which is wound the steel cable connecting with the steering knuckles. The arrangement is similar to that employed with the tiller of a boat. The wheels are maintained parallel through the agency of the distance rod, which links the extensions of the steering knuckles together.

Power Plant and Drive

The use of a standard motorcycle engine of from three to seven horsepower is contemplated. The method of mounting shown is purely suggestive, as there are so many makes of engines on the market that it is difficult to present any one mounting that would serve for all. The plan suggested is merely to run studs through the lugs on the crankcase, bolting down these studs to the central struts of the chassis in the manner shown in the side elevation and plan views, Plates III and IV.

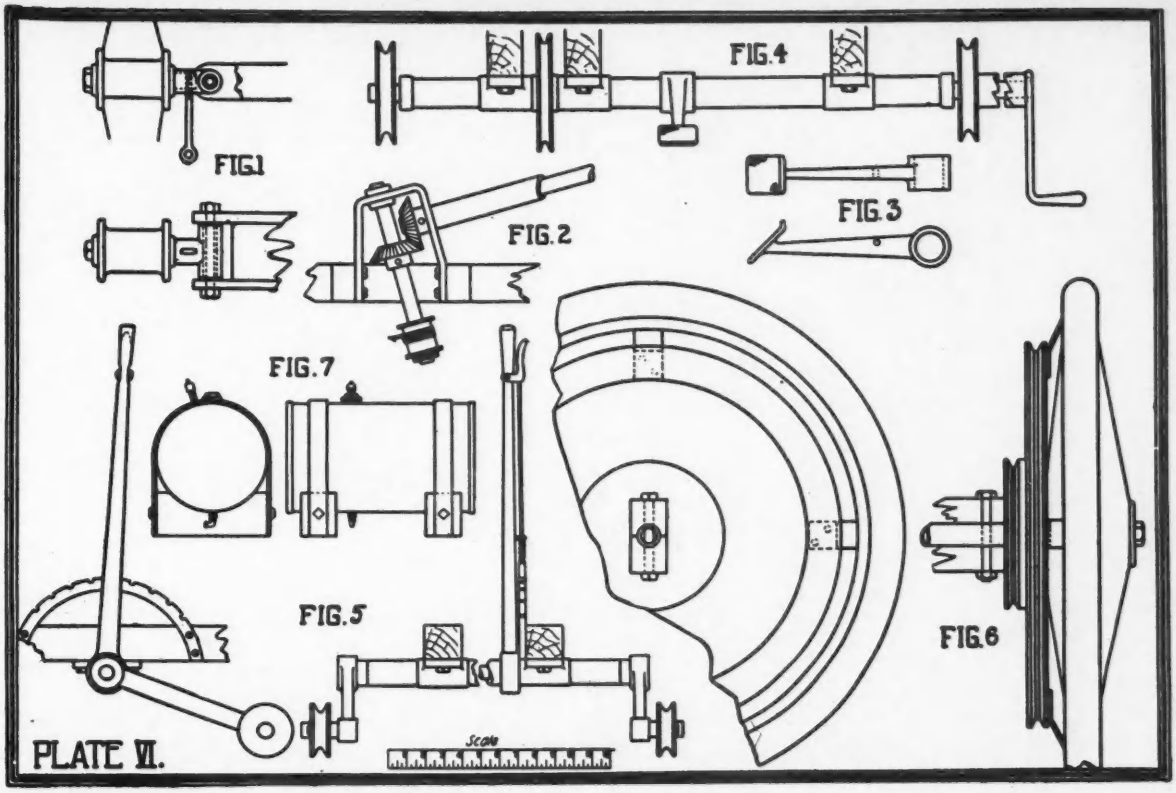
The pulley supplied with the motor will undoubtedly serve the purpose, and upon its size and the power of the engine will depend the diameter of the intermediate or countershaft pulley. The reduction shown in our drawing is about 2:1, this being suitable for the small, single-cylinder motors so commonly used.

The countershaft requires some attention. In Plate IV the reader will notice that this member is carried in a series of bearings made from pieces of pipe, into the ends of which standard annular ball bearings are fitted. These bearings may readily be purchased and it is comparatively a simple matter to fit them to the supporting members. The pipe is secured to the struts by means of strap-irons bolted on. The countershaft carries the central pulley, taking its belt from the engine shaft and, also, at both ends carries the drive pulleys from which the belts pass to the rear wheels. The shaft extends beyond the pulley on one end in order that a starting crank with ratchet may be added if desired. This crank is, of course, removable.

In the center of the countershaft housing will be noticed the brake pedal which pulls the slender rod extending back to the brake bar. This bar is slidably arranged on the struts in order that it may be drawn forward to tighten the steel cables which pass over pulleys on the drive wheels. The other ends of these cables are fastened to the ends of a cross piece which may be seen in Plate III.

Immediately in the rear of the countershaft may be seen the belt idler and its control mechanism. This consists of a shaft carried in two pieces of pipe, which are fastened with strap-irons to the struts, a long lever by means of which the shaft is turned and, at either end of the shaft, an arm carrying at its extremity an idler pulley. The parts of the idler mechanism may be gotten out in castings quite readily, as the pattern work is comparatively simple. The details of the device are very clearly shown in Plate VI, Fig. 5.

To pass now to the rear wheels and their pulleys. If the builder can secure two standard motorcycle wheels with pulleys attached, well and good, but if the substitute must needs be a bicycle wheel, an improvised pulley may need some thought. Perhaps the simplest way out of the difficulty is to build up a pulley from some good, dry, hard wood in three thicknesses, crossing the grain three ways. Instead of glue, heavy varnish may be liberally used between the layers of wood, which should be about ½ inch thick. The final holding with a series of rivets spaced a few inches apart and near the periphery will prepare the pulley



for turning. The center is taken out as the pulley is fastened to the rim of the wheel by means of straps of steel. The final treatment of the pulley should be a liberal impregnation with some good waterproofing compound over which the finishing paint may be applied.

The smaller pulleys serving as brake drums may be made up in the same way, but their rims should be lined with steel ribbon, as the friction of the cable would soon cut the groove too deep. These pulleys are to be fastened to the hubs of the wheels. A secure method to accomplish this is to let the sprockets into depressions cut in the pulleys, thus forming an effective key.

The belting may be heavy, round leather, or it may be standard motorcycle belting which has a V-section to fit the groove in the pulley.

The ratios of the various pulleys as shown in the drawings will make for good hill-climbing qualities rather than speed, and in view of the absence of springs, it is quite likely that the ability to pull under all conditions will prove more desirable than would the greater speed to be obtained through a smaller reduction.

Between the rear axle and the belt idler will be seen the reserve gasoline tank, the function of which is to carry a greater supply of fuel than the main running tank—shown on the dash—is capable of holding. The system of piping and distribution is so clearly shown that it needs no further description. The details of the mounting are given in Fig. 7.

The fitting up of the dash with the control devices, such as the switches for ignition, fuel and oil handles, is best left to the individual builder. A suggestion for the spark advance and throttle levers is given in the side elevation, Plate III. This arrangement is exceedingly simple and it is probably as satisfactory as any within our reach. The termination of the two rods is not shown, as the carburetor and distributor are seldom in the same place on any two makes of engines.

The hood and body of the car are of heavy sheet iron. Plates I and II show the general appearance of the construction. The patterns for the metal should be laid off on heavy paper and cut to shape. In order that the accuracy of the patterns may be tested, they should be bent up and placed on the chassis. The edge of the metal forming the body should be turned over heavy steel wire in order that it may be stiffened and finished.

The hood should be quickly removable as a whole in order that access may be had to the engine. A simple hook fastening will suggest itself to the builder. If difficulty is experienced in keeping the engine sufficiently cool, a second opening may be made in the top of the hood near the dash and fitted with wire netting, as is the front.

The upholstering of the seat is a matter for the builder to decide. A covering of pantasote over a spring seat of the usual type will provide a cushion of good appearance and comfortable riding qualities.

In closing, a few suggestions regarding changes in the design may not be inappropriate. The length of the steering rod, for instance, should be determined by the build of the driver; the distance from the foot board to the rear of the seat is another consideration; the elimination of the hood and body would improve the riding qualities of the car by providing a longer spring in the struts; variable speed could be secured through the addition of a friction disc drive—an appliance not difficult of construction. These and a dozen and one other improvements or alterations will suggest themselves to the prospective builder who applies himself seriously to his task.

As a last word to those who have followed this necessarily brief description to the final paragraph, let the author suggest that standard parts can be obtained in great variety and builders are by all means advised to purchase such parts rather than try to improvise them if a car of durable qualities, capable of long and practical service, is desired. At the best, the car described is scarcely more than a makeshift vehicle intended to furnish amusement in much the same manner as would a bob sled or an ice boat. If, in presenting this design, the author has done nothing more than to offer some suggestions which may prove of assistance to the amateur mechanic who has aspirations toward the building of a real cycle car or light automobile, he shall feel that his efforts have certainly not been in vain.

Gentlemen ... BE SUI

Compiled by Virginia Barnett
Illustrated by Mary Walgamott

GENERAL INFORMATION

No creator of fashion devoted more time and attention to his product than did the early manufacturers of automobile clothing. Every shop that supplied the motor enthusiasts were filled with the latest in dust coats of the finest to the heaviest type materials, and the last word in goggles, gloves, hats and caps.

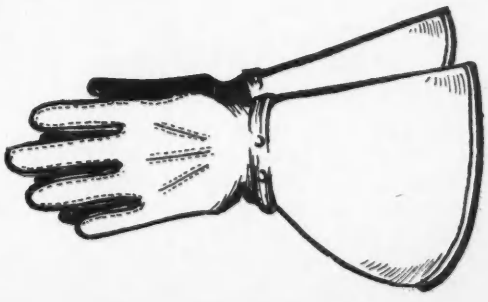
If you are going to dress on tours and outings, dress properly. Evening and fancy clothes should be kept for evening. They will be appreciated then. Simplicity and comfort are the bywords for daytime activities in the old cars.

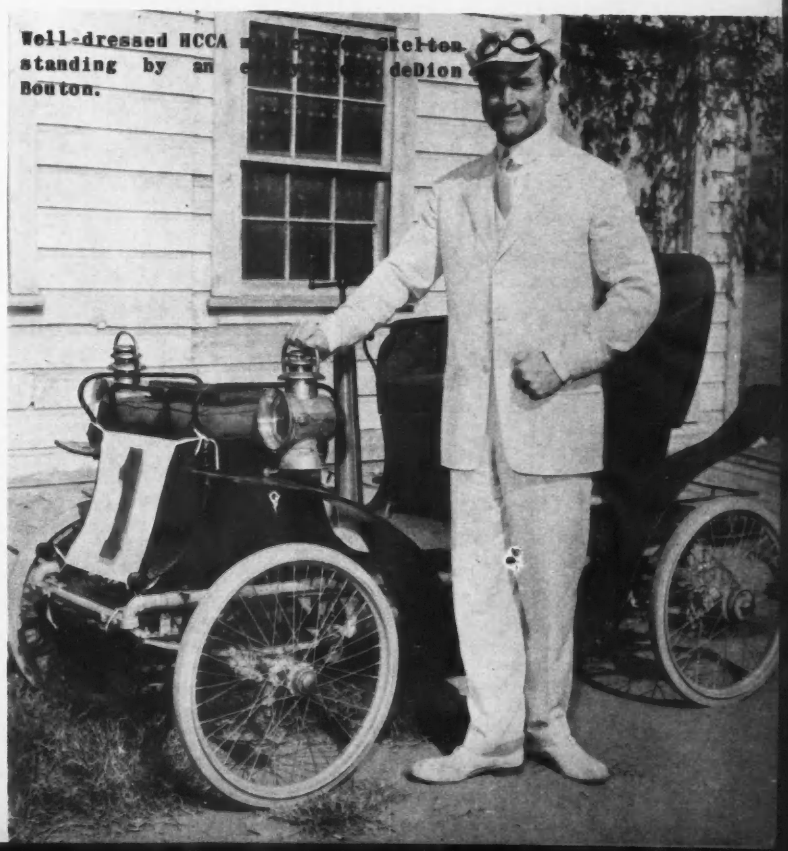
1. Box plaited dust coat of a type much in favor among automobilists.

2. A rainproof deep-sleeve raglan duster which is made in cheviots and homespun.

3. Driver's rubber shirt, which slips over the head, giving absolute protection against rain.

4. An attractive duster of distinctive lines. The side plaits, belt and double-breasted effects are striking.





Well-dressed HCCA [illegible] Skelton standing by an [illegible] deDion Bouton.

MEN'S CLOTHING CONTINUED

Modern flannel and worsted suits can be made to resemble the old style suits with very little work. Best to use the single breasted round bottomed short business style. Have a fairly snug fit. Add one button and button hole to the top of the jacket to bring the neck opening higher. The trousers can be narrowed down to the proper fit and the cuffs removed. Don't make them too short. It was considered in bad taste.

Spats can be used with modern shoes to give them that antique look. They can be found at most swap meets.

Outing shirts were more colorful than others. Worn with either unstarched collar and bow tie or starched collar and narrow four in hand. Every combination of color and material was used.

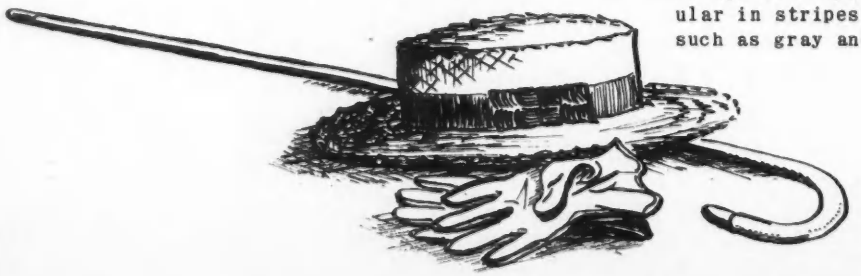
Blazers were considered as sport wear. Worn for tennis, bicycling, picnic etc. The fad was to wear colored bandana neck scarfs with them.

Ties should be worn at all times. The bow tie can be used with the sack suit or tailored daytime suit if there is no vest worn.

The fashion experts of early 1900s were very strict about wearing the right type of evening clothes when ladies were present. This should not disturb us, but be sure not to wear formal attire during the day; this includes the top hat.

Regarding jewelry, a man is never criticized for wearing too little. Men of good taste wore little or none. Studs and links for evening were of pearl, agate or moonstone. Never diamonds. Very small diamond tie pins were all right in the daytime. Watch chains were sometimes elaborate and made of gold or silver with fancy fob.

Sack suit or lounge suit. Also came in double breasted style. It is worn only in the daytime and made usually of flannel, worsted and cashimeres. Trousers are cuffless and narrow, long enough to drape just slightly over the foot. Popular in stripes and plaids of modest colors such as gray and blue.



A

B

C

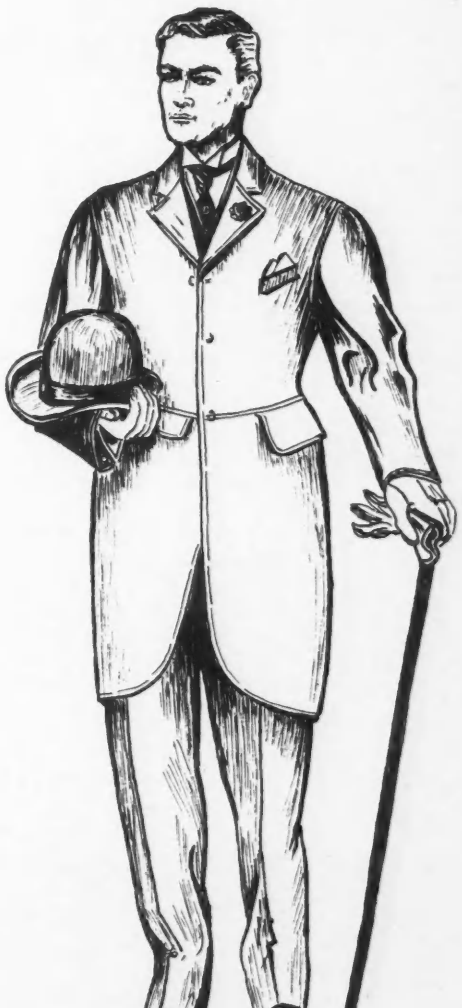
D

A Norfolk jacket for general outing wear. It comes in various combinations of checks and plaids. Colors being more predominating than in other suit styles. This model is of shepherd plaid and is considered conservative. Red overlines on black and white. The belt is ornamental. Trousers of the same material are worn with it and are made roomier than others with a broad turn-up cuff.

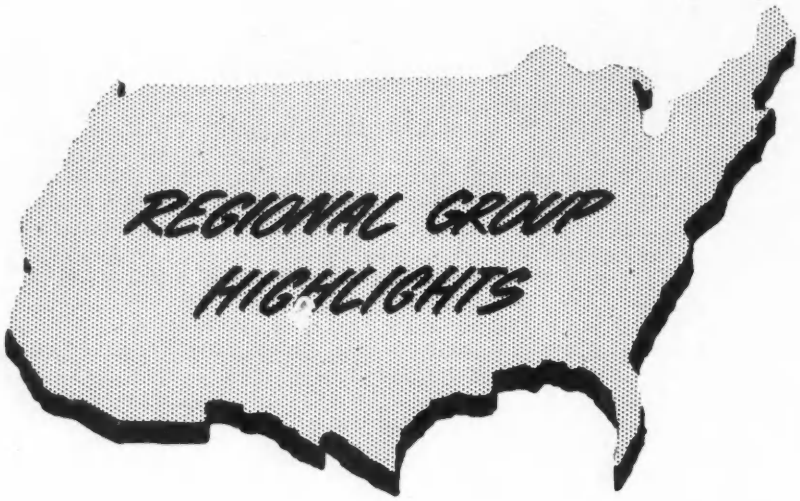
B Worsted waistcoat. Made for casual wear without a coat in the summer, or worn under a duster in the car. It has an edging of contrasting color, small low set pockets, usually fancy and is best without sleeves. Bow tie can be worn with this.

C Pinstriped collarless waistcoat (vest) worn under sack suits or business suits. Made in all shades and with modified pointed fronts with five button closing. Always wear four in hand tie when wearing a vest.

D The shoe pictured here is called the American. It can be worn with all daytime suits. It has a medium round toe, side buttons and is of imported enameled leather with a heavy sole, grained leather top and a military heel. The two toned combinations were very popular.



RIGHT: Modified cutaway. A business or walking coat and trousers. It is proper to wear at evening banquets or any daytime affair that is not an allday tour. Comes in soft small checks and modified plaids. Note the different type collar and tie worn with the dressier suit. The collar is called the poke or lapfront. The tie or cravat is an Ascot, once-over four in hand. Shirt and handkerchief are always white with a dress suit. A similar style coat called a morning coat is more formal and doesn't have the flaps at the waist or the breast pocket.



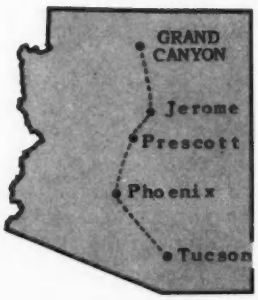
NEWPORT BEACH (California) has commenced republication of their newsletter, DUSTER POINTS under the editorship of Eric Rosenau. The "Times to Primes" listing included with the current issue points to a full year of activities, to be climaxed by a joint tour with the SAN DIEGO group in October.

COLORADO regional group's annual dinner attracted more than 100 members and their families, plus visitors from Hutchison and Wichita (Kans.) Kansas City, Casper (Wyoming) and Rapid City (So. Dakota). Midwest plans for the Spring and Summer season were outlined, and received with much enthusiasm.

GREAT FALLS (Montana) has a new color cover for their publication, ANTIQUE & CLASSIC TIMES. Ask your local club secretary to show you this much improved bulletin.

SOUTH TEXAS (Houston) officers and directors for 1957 are shown here surrounding Sam Daidone's newly restored 1912 MAXWELL "Maxcotte" torpedo roadster. That's President Ned Brandt at the wheel.

6th ANNUAL GRAND CANYON TOUR

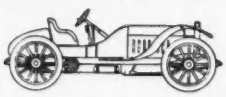


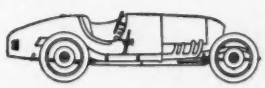
MAY 28th through JUNE 1st

For reservations, write
AL WETHINGTON
6162 South Fontana
Tucson 2, Arizona.

BOOK REVIEWS

THE RACING CAR - Development & Design is a companion volume to THE VETERAN MOTOR CAR and THE VINTAGE MOTOR CAR, reviewed here previously. This excellent book is the work of three men: Cecil Clutton, president of Britain's Vintage Sports Car Club, who covers the subject through 1915; Cyril Posthumous, Associate Editor of AUTOSPORT, who wrote the section on the years 1919-1933; and Denis Jenkinson, MOTOR SPORT's Continental correspondent, who was responsible for the story from 1934 to the present. Starting with the 1895 Panhard et Levassor, they trace the record of racing cars through the 1956 type 251 cross-engined Bugatti. Design characteristics of both engines and chassis of all important models are covered in some detail, while the competition records are also compared. An important aspect of this book is the study of the development of particular design features through the years, and from car to car. Henry's overhead valve layout; the trend to short stroke, high RPM engines; the increasing need for torsionally rigid frames and independent suspension-- the evolution of all are thoroughly explained. American readers need not feel that they have been neglected, for while this book does, indeed, cover primarily the true "Grand Prix" road racing car, the better U. S. built designs are dealt with fairly. The Duesenberg, the Miller and so on are considered both as regards their racing successes and their relation to European design. At the outset, the authors point out that their book is not a definitive work like Pomeroy's huge two volume THE GRAND PRIX CAR, selling for more than three times the price of this publication. But this book does rank second only to that overwhelming opus! 105 fine illustrations are scattered throughout the 288 page, cloth bound book, and a good index is included. THE RACING CAR- Development and Design is published at $6.50 by Charles Scribner's Sons, New York.





HISTORICAL CATALOG OF 1929 CARS. Floyd Clymer, Publisher. $2.50. This book, another of the Clymer reprints, is the 1929 Annual Handbook of the National Automobile Chamber of Commerce. It is quite complete for there are pictures and specifications of 148 vehicles manufactured in 1929, 91 of which were passenger cars. In many instances the prices are also given, and this fact alone marks this Clymer book with some historical significance. I.e., a Buick five passenger phaeton cost $1225, and the Buick five passenger four door sedan cost $1550. A run down of some of the distinguished cars which have passed into oblivion since 1929 recalls memories for many, cars such as: Cunningham, duPont, Elcar, Franklin, Gardner, Hupmobile, Kissel, Locomobile, Marmon, Moon, Peerless, Pierce-Arrow, REO, Roamer, Stearns, Stutz and Velie. The book is nothing more nor less than a catalog, but the pictures and specifications will be of great interest to the automotive enghusiast who is interested in cars built in the year of "the big crash." A number of additional statistics based on 1928 production and sales are also presented.

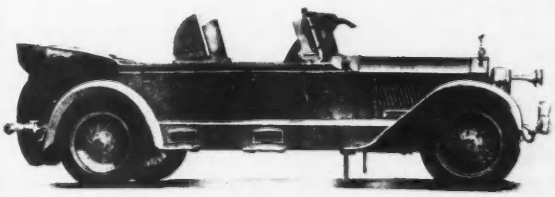
A page from Clymer's CATALOG OF 1929 CARS.

ROAMER MOTORS, INCORPORATED

Kalamazoo, Michigan

Five-Passenger Sedan	$2985	Five-Passenger Tourer	$2495
Seven-Passenger Sedan	3285	Five-Passenger Sport Tourer	2750
Two-Passenger Speedster	2985	Two-Four-Passenger Roadster	2985

(Subject to change)

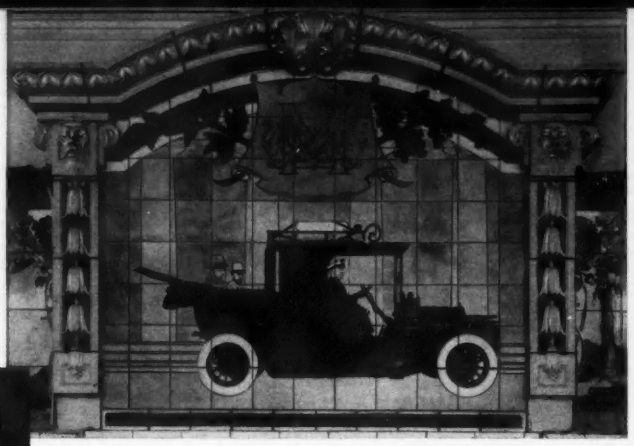


ROAMER FOUR-PASSENGER SPECIAL SPORT—8-88

COLOR	Optional	LUBRICATION	Full force feed
SEATING	Five	CRANKSHAFT	Five bearing
WHEELBASE	136 inches	RADIATOR	Cellular
WHEELS	Disc or wood	COOLING	Centrifugal water pump
TIRES	6.50—20 (32 x 6.20) inches, balloon	IGNITION	Storage battery
		STARTER	Two unit
BRAKES	Foot, hydraulic contracting on four wheels	FUEL FEED	Vacuum
		CLUTCH	Single dry plate
	Hand, contracting on propeller shaft	SPEEDS	Three forward, one reverse
ENGINE	Eight cylinder, vertical, cast in block, 3¼ x 4½ inches; head removable; valves in side; horsepower 31.25, N.A.C.C. rating	DRIVE	Spiral bevel
		REAR SPRINGS	Semi-elliptic
		REAR AXLE	Semi-floating
		STEERING	Cam and lever

STANDARD EQUIPMENT—Instrument panel with speedometer, ammeter, dash gasoline gauge and water temperature indicator; electric horn, automatic windshield cleaner, spare wheel, stop light, spot light, rear view mirror, sun visor, cowl ventilator, headlight dimmer and clock. Closed cars have heater, corner lights, dome light and vent eaves.

MICHELIN



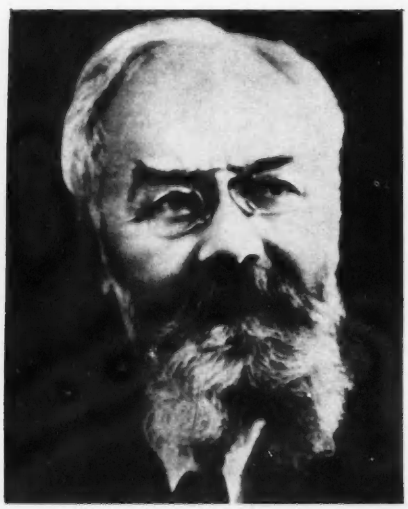
To the French MICHELIN firm goes the credit for pioneering pneumatic tires on motor cars. In the early 90s all the major auto manufacturers felt that while the bicycle might profit by an air-cushioned ride, the automobile was just too heavy to use them. And Andre Michelin's first experiments almost proved they were right, for he had blowout after puncture after blowout. But needless to say, his perseverance won out, and made the motor car a practical, and fast, vehicle.

The collection of photographs on these pages, highlighting MICHELIN history, was assembled last year on the occasion of the 50th anniversary of Michelin's English subsidiary. The parent firm at Clermont-Ferrand, however, is much older, being descended from a rubber ball factory established well over a hundred years ago.

Elizabeth Pugh-Barker was the niece of the Scotch chemist Macintosh who discovered the solubility of rubber in benzene, and applied it to waterproofing cloth. Quite incidentally, he had amused his young niece by making toy rubber balls for her. Later, after her marriage to Edouard Daubree, she introduced rubber manufacturing to the business owned by her husband and his cousin, a man named Barbier. The latter was the Michelin brothers' grandfather.

Edouard Michelin (1959-1940) studied painting in Paris under Bougereau. When the family business began to fail in 1883 he took over the factory management, and plotted the enlightened course the concern has steered to this day.

Andre Michelin (1853-1931), Edouard's brother, was employed in Paris by the government Public Works Department where he was concerned with iron manufacturing. He followed his brother's lead, and made an invaluable contribution to the MICHELIN rubber firm, especially as regards the pneumatic tire.



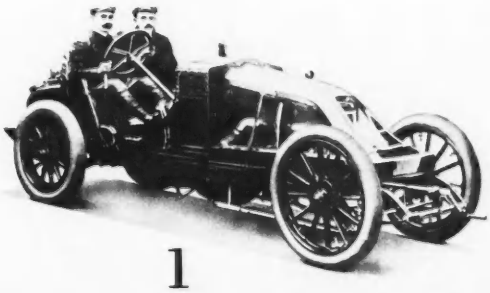
LEFT AND ABOVE: Parts of the mosaic frieze in MICHELIN's London building, illustrating important milestones in the history of pneumatic tires.

1. DETACHABLE RIMS: The quick tire changes enabled Szisz to drive his Renault to victory in the first French Grand Prix at LeMans in 1906.

2. HIGH SPEED TIRES: Using special Michelin tires, Camille Jenatzy was the first man to exceed a mile-a-minute. He did this in April, 1899 in his battery-powered "la Jamais Contente."

3. TESTING TIRES: Andre Michelin himself drove this modified Peugeot in the 1895 Paris-Bordeaux-Paris race.

4. NON-SKID TIRES: Thery won the last Gordon Bennett Race (1905) on this Richard-Brasier using Michelin metal-studded tires.

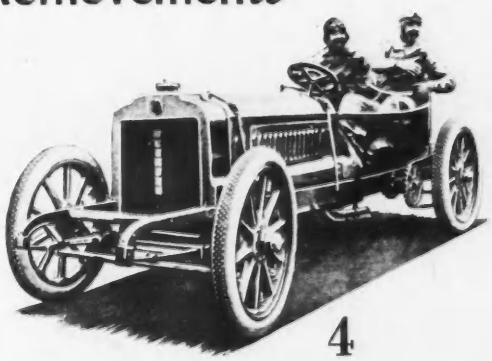


1

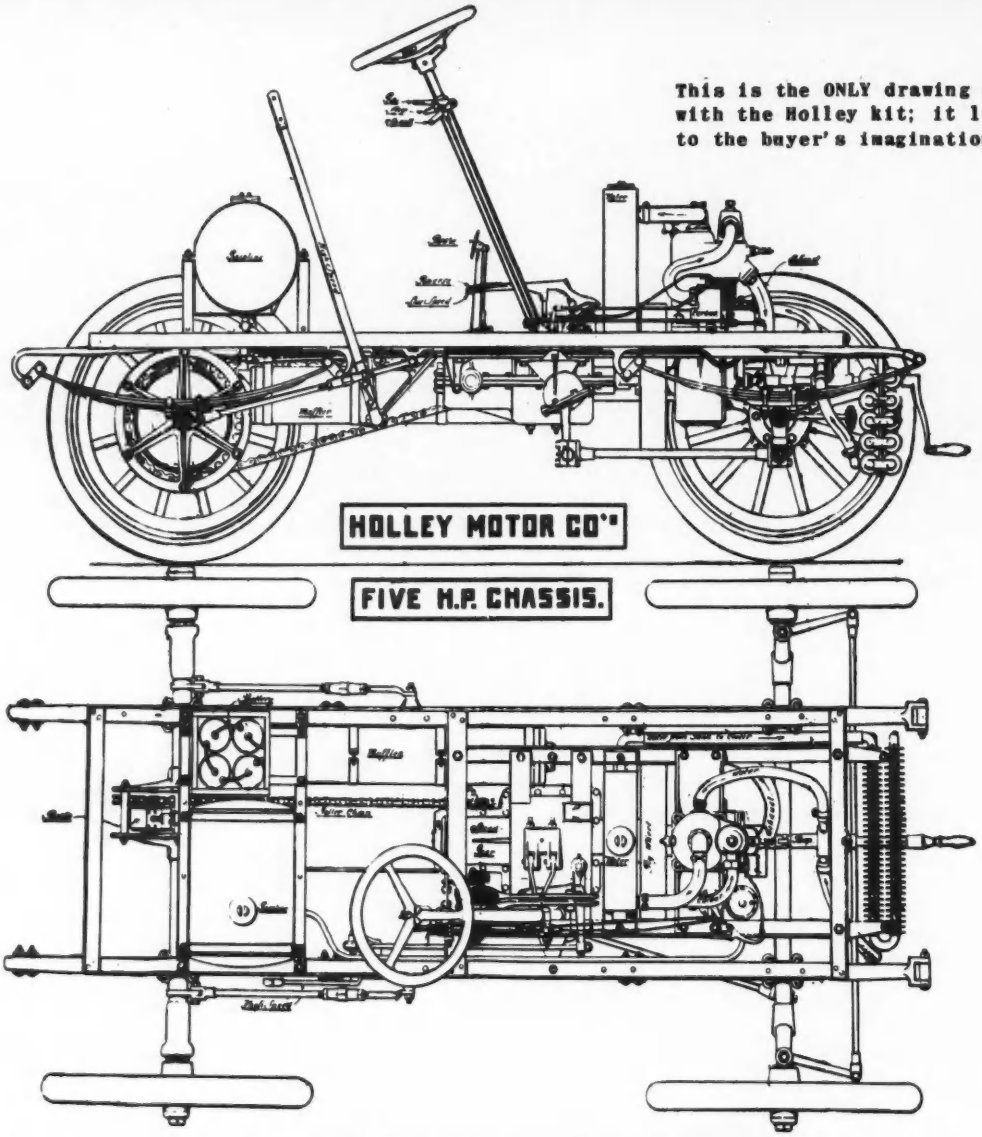
2

Some Michelin Achievements

3



4



This is the ONLY drawing supplied with the Holley kit; it left much to the buyer's imagination.

The HOLLEY *DO IT YOURSELF* KIT

by Howard Curtiss

In midsummer of 1904, my father, the late George W. Curtiss, accepted a freight consignment from the Holley Motor Company of Bradford, Pennsylvania, This shipment was the most-fearsome aggregation of crates and packing cases we had ever beheld, but they contained all the parts necessary to build the 1904 Holley Light Touring Car.

The Holley Company had discontinued the manufacture of this car to concentrate on the production of carburetors and magnetos, and in fact, the 1906 six cylinder Ford cars were equipped with both of these items.

As the shipment was unpacked the job appeared even more formidable and the more astute and articulate of our neighbors advised forthright abandonment of the project. They pointed out that we would never live to ride in the finished car--and even if we did the "auto" was destined to go the way of the bicycle into oblivion.

Despite these dire predictions, the body parts, hood, fenders and wheels were delivered to the old Columbus Buggy Company for painting and trimming. Meanwhile the chassis assembly was started in the basement of our home, with

Howard Curtiss is shown here about to depart for nearby Kansas City in the 1909 HOLLEY which he and his father assembled in their basement.

the full realization that, upon completion, it couldn't be removed intact, but would have to be dismantled and reassembled in new garage facilities.

I was probably the "spark plug" in the venture since, among other concessions, I had agreed, if dad would only order the knock-down version of the Holley Light Touring Car, to maintain an outstanding scholastic position, to mow our lawn for the next forty years, and to forego any hope of a desirable status in the next life!

As can be imagined, assembling the chassis was a slow and laborious process, even with the aid of the solitary blue print supplied. The angle iron frame was drilled for spring hangers, shackle brackets, radius rod anchors, engine, transmission and all other component parts, with a hand-operated breast drill.

The major chassis adjustments were made at this stage and I recall one error in assembling the Brown Lipe steering gear. When the steering wheel was turned to the right, the front wheels turned left, and vice versa. Needless to say this was corrected at once.

In the late autumn, after many heart breaking delays and obstacles had been surmounted, the body was lowered onto the chassis, the 26x2½ Dunlop tires mounted on the wheels and the Renault type hood put in place. The black enamel fenders and accessories were added-- and there it was, red and black with its resplendent brass-- really a handsome little vehicle; and it ran!

A quick rundown of specifications might be of interest. The engine was a one cylinder Holley 3½ bore, 4 stroke. Automatic intake valve (which rarely ran 300 miles without failure.) Longuemare carburetor, non automatic, necessitating constant attention to the air control as speed and load varied. Ignition was high tension, current source being four dry cells. Very high current consumption because the breaker cam originally produced an excessive dwell angle. The cam was redesigned with very good results in prolonging the life of the dry cells.

The radiator was ½ inch copper tubing coiled into two banks of five rows each. Copper fins were soldered to the tubing to aid in heat dissipation. In spite of the radiator described, the auxiliary three gallon tank, and the sliding vane pump, heating in hot weather was a major problem.

Oiling was effected by crankcase splash supplied by a one-quart brass tank and manually operated sight-feed valve on the dash.

The transmission was an Upton planetary, completely housed, and running in oil. The bands were bronze, compressed by piano type pedals. This gear set provided a reverse and two speeds ahead (realistically described as low and lower). The top speed in direct drive was about twenty miles per hour.

The final drive from the bevel gears and jack shaft in the transmission was by chain and sprocket to the spur gear differential centrally located in the rear axle. The single drum Raymond brake also mounted here was very effective since the job weighed only 850 pounds.

As could be expected with its 58 inch wheelbase and 2½ inch tires, inflated to 40 pounds pressure, the ride was at best "firm." In view of this and the general road conditions of 1904, we never ventured very far afield--usually Kansas City and its environs. However, we drove it consistently until about 1909, which brings to mind an ordinance of this era--requiring any operator of a motor vehicle to stop his car and engine, then get out and lead frightened horses past the offending object-- always a disagreeable experience.

This car was sold in 1921, due to lack of garage space, and shortly thereafter vanished without a trace.

Yes, we'll never forget the Holley, docile then tempermental by turns; It repaid our devoted care with all manner of puckish pranks and mechanical insults-- and made us love it.

AUTOMATIC TRANSMISSIONS THEY'RE NEW?

by Ray E. Amundsen

In an article in HARPER'S MONTHLY MAGAZINE a number of years ago, a writer stated: "As anybody who ever drove one will testify, the steam car was a sweet-running machine, with amazing acceleration, power, and ease of control. ..Millions of dollars have been and are being spent in an effort to mitigate the curse of clutches and gearshifts, neither of which the steam car ever needed."

The writer, John Chapman Hilder, thus stated a problem which some of the early car manufacturers attempted to solve by developing automatic or semi-automatic transmissions, and most of them had merit.

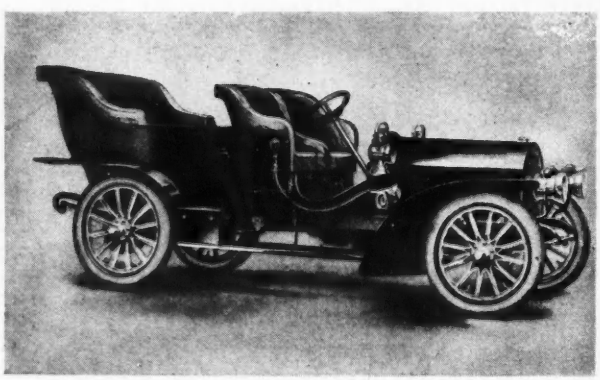
The **Automatic Sturtevant**, built by the Sturtevant Mill Company, in Dorchester, Mass., from 1904 to 1908, had a fully automatic transmission! On the floor under the driver's feet, were two pedals. The right one was the emergency brake, the left one was the reverse pedal. Between the two pedals was the "Foot-Button Control." A Sturtevant ad in 1905 states: "When you press the Foot-Button, the brake is released, the clutch engages, the car starts and runs at all speeds from less than half a mile per hour upwards. When the Button is let go the car stops, by a powerful brake. The gears change automatically by road resistances. The right gears are always in use. The driver has nothing to do with gear changing... Can be operated by anybody that can drive a horse, and far more safely."

The "Foot-Button" of the Sturtevant was connected to the carburetor throttle and to the automatic brake. The engine was started by hand cranking, and at idling speed the car remained stationary. When the "Foot-Button" was depressed, the engine speed increased and the centrifugal governor weights engaged first, then intermediate and finally high gears. If the car encountered a grade that caused the engine to slow down, the governor weights let the high gear clutch slip until the intermediate gear took hold. If the grade was so steep that the motor slowed down still more, the intermediate clutch was released and the low gear took up the drive. If road conditions were such as to pull down the speed of the engine on the low gear, the low clutch automatically slipped, preventing stalling of the engine. The clutch springs and governor weights were so proportioned and adjusted that the drive was always taken on the most efficient gear for the momentary engine speed. Changes of speed were gradual.

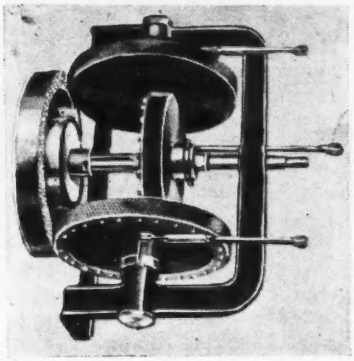
GAS-AU-LEC
"THE SIMPLE CAR"
A 40-45 H. P., 4-cylinder, 4-cycle engine, five passenger, side entrance Gasolene Touring Car of the Highest Grade.
WITHOUT { Starting Crank; Change Speed Gears; Clutch; Cams; Rocker Shafts; Tappets; Valve Gearing or Complications.
Every movement of the motive power and the car, from a state of absolute rest, forward at any speed or reverse, is controlled by one lever, operated either by hand or foot, as preferred. Positively no other speed or movement controlling device of any kind on the car. Triple brakes—irreversible steering gear.
The Gas-au-lec is the Simplest Gasolene Car in the World, both as to construction and control, and the easiest to operate and maintain.
Elegant in Finish. Luxurious in Appointments.
Built by Skilled Workmen from the Best Materials Obtainable.
CORWIN MFG. CO. Formerly VAUGHN MACHINE CO. PEABODY, MASS., U. S. A.
"Marks a New Era in Automobile Construction."

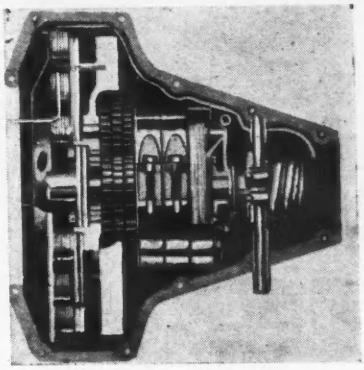
1906

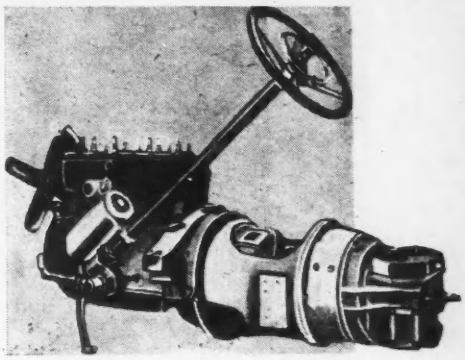
THE 1904 STURTEVANT



Automatic transmissions were pioneered by Sturtevant Mill Co. of Dorchester, Mass. Their "Automatic Automobile" of 1904 had three speeds forward, all engaging automatically as engine speed increased. Downshifting was also automatic.







A man named Lambert invented the Friction-drive transmission. LEFT: This illustration shows it applied to the 1906 GEARLESS. CENTER: The well-known FORD planetary transmission, basis for most modern automatic transmissions. RIGHT: Motor-generator of the OWEN MAGNETIC.

The automatic Sturtevant was far advanced for its time, and its method of operation seems almost as modern as Dynaflow, Powerglide, Ultramatic, Hydramatic, or any of today's automatic transmissions.

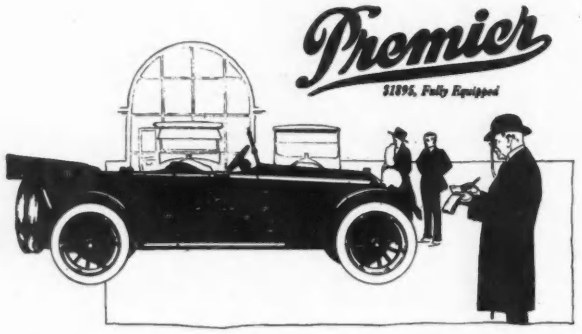
The Gas-Au-Lec, built by the Vaughn Machine Company, Peabody, Mass., in 1905 and 1906, was a combination of gasoline and electric motive power. Its four cylinder engine was supplemented by an electric motor-generator. The entire control of the car was concentrated in two pedals, one operating the brakes and the other controlling the motive power and regulating the speed of the car forward or backward. When the control pedal was pushed forward into its first position, the motor-generator started, moving the car forward and at the same time turning the engine over, the valves being held off their seats by magnets. With the pedal pushed forward into second position, the motor-generator increased the speed of the car and when a speed of about eight miles an hour had been attained, the valves were allowed to seat, the ignition current switched on, and the engine started--- or was supposed to start. At this point the motor-generator ceased to drive and commenced to generate, recharging the storage battery consisting of 20 cells. Still further movement of the pedal opened the throttle and advanced the spark, the maximum speed being attained when the pedal was pushed as far forward as it would go.

Henry Ford was one of the early exponents of shift-less driving. All FORDS from 1903 through 1927 were without gear-shift levers, gear changes being accomplished by the feet, operating the pedals of the two-speed planetary transmission, and leaving the hands free to manipulate the steering wheel, spark and gas levers. Included were Models A, B, C, F, K, N, R, S, and finally, the most famous Ford, the Model T. These instructions for the operation of a Model T are included by Victor W. Pagé in his "The Ford Model T Car": "To start the car, the left foot is placed on the clutch pedal to keep it in a neutral position while the hand lever is thrown as far forward as it will go. The engine is then accelerated and the clutch pedal is pushed forward until the slow speed band tightens around the drum of the transmission and the car gathers headway on the lower ratio. After it has attained a certain momentum, the clutch pedal is allowed to drop back gradually into the high-speed position. The foot may then be removed until such times that the clutch must be disconnected. Before applying the foot brake, which is done by pressing with the right foot upon the pedal marked "B" the clutch pedal should be put in neutral position with the left foot. To reverse the car, the clutch is disengaged with the hand lever, which is placed in the neutral position but not pulled far enough back to apply the emergency brake. The reverse pedal marked "R" is then pushed forward with the left foot, leaving the right one free to use on the brake pedal as needed."

The Remington, built by the Remington Motor Co., New York City, in 1914 and 1915, had an automatic gearshift. In their advertising brochures, they state: "Change of speeds is obtained by the Hollister automatic gearshift, the patents of which the Remington Motor Co. has exclusive control. It will appeal particularly to the new owner, as by it changes of speed can be effected easily and without labor. The device is best expalained by its operation:

"After starting the motor, the operator selects the low speed by moving a lever to a point of the control corresponding with the speed desired. The clutch is then depressed and low-speed gear is quickly and automatically meshed. To change into the second, high or reverse speeds, the lever above referred to is set to the desired speed, but the change is not effected until the clutch pedal has been depressed. Changes can be anticipated, but if the op-

continued next page



The Aluminum Six with Magnetic Gear Shift

We ask you to compare this new Premier in every detail with the most expensive cars on the market, and when you have finished, you yourself will echo the question of thousands: "How do they do it at $1895?"

Here are the features of the one car that will make the Shows of 1917—*historic.*

An Aluminum Motor, designed and built in the Premier factory under the personal supervision of Earl G. Gunn, our chief engineer and the original American builder of aluminum motors. With only 300 cubic inches piston displacement, this overhead valve, six-cylinder motor develops upward of 72 horsepower. We question whether any motor in America can climb a difficult hill "in high" as slowly as *Premier*. Ask for a demonstration.

C-H Magnetic Gear Shift, as regular equipment and without extra charge, has been adopted by Premier. In so doing Premier leads the world as the car which first gave motorists this crowning and long-needed convenience as regular equipment. The mechanism which, by means of push buttons, controls Premier's gears, is the product of the world's greatest builders of electrical controlling apparatus, the Cutler-Hammer Manufacturing Company of Milwaukee, Wisconsin. Cutler-Hammer manufacture the electrical controlling apparatus on United States battleships and submarines. The action of the device is simple and positive. Push a button and the gears obey. It keeps the control of your car right under your thumb—you can change gears on an up-hill climb without losing momentum. You can change gears in traffic in one-half the time required by the hand gear shift. It is as great an advance as was the electric starter. This device is unqualifiedly guaranteed by both the Cutler-Hammer and the Premier companies. Ask for a demonstration.

New Premier "Bullet Body Lines" supplant the conventional stream line which has characterized practically all motor cars for years. To this new mode, Premier adds the charm of an exquisite *gun-metal velours* body finish combined with wheels of natural wood. From a standpoint of durability and texture, Premier's finish is unsurpassed by that of any car. Premier's beauty is growing proverbial.

The Turning Radius is so short that the driver of a Premier car can almost spin it on its own axis—this must be seen to be believed. Ask for a demonstration.

An Eight-Inch Bridge Girder Frame, deeper by 50 per cent than the frame in most cars, forms such a solid and rigid foundation that body squeaks and rattles are almost impossible; and the frame's rigidity makes the car hold the road better at sixty miles an hour than most cars do at twenty-five.

More Body Room has been obtained on Premier, through clever and space-economizing design, than has ever been considered possible on a wheel base of 125½ inches—compare it with your present car.

The Driver's Comfort has been carefully studied. The new-type tilting steering wheel, the push-button gear shift, the design of the driving seat, and the easy-reach placement of everything that enters into driving, give him a chance to take a joyous part in the ride.

Points of Luxury are everywhere. The auxiliary seats are roomy and interfere with no one's comfort. The instrument board is solid walnut, finished like a boudoir table, with ammeter, oil gauge, Warner speedometer and a nickeled dash-light which becomes a spot-light on a 15-foot cord by merely pulling it out of its socket. The upholstery is of the finest—Marshall Sanitary cushion springs and real leather. The tonneau rug is of natural undyed wool. The nickeled robe rail can't rattle or sag. The genuine Pantasote top is custom tailored in our own shop and bound with aluminum. There is a tonneau light that illuminates the running board. Not a detail is omitted. All these points conspire to make Premier a car that women will love.

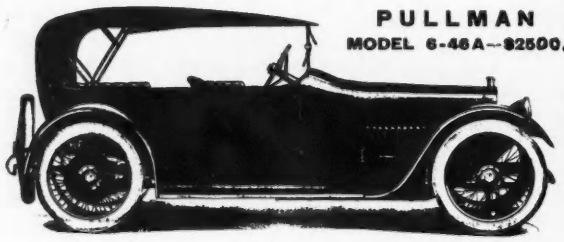
"Rides Like a Liner" is an expression used by a connoisseur who soon found out that you don't have to brace yourself for the bumps in Premier—thanks to the 58-inch semi-elliptic Perfection rear springs, to the perfect balance of the car, impossible without the use of an aluminum motor, and to the ballast of the 8-inch frame. The axles on Premier are Timken. The electrical equipment is Delco—everything is of the best. And on the hills and through traffic the car is a revelation. It has worlds of power and jumps under the gas like a blooded horse hit with a whip. It throttles to almost nothing in high—without bucking or quitting. The car as shipped weighs only 3245 pounds.

Finally, we believe that eventually a car without a magnetic gear shift will be as obsolete as a car without an electric starter. Go to the Premier booth at any of the Shows this year, or to any Premier salesroom and—*ask for a Demonstration.*

erator sets the lever for the low speed, for example, and decides that the second will serve, this speed can be obtained by moving the lever to the second-speed position.

"The device is of particular value when dropping from the high into the second when ascending a grade, a change not easily made, especially by the new owner. The advantages of the automatic gearshift in traffic are well known. It provides the driver with perfect control of the machine and enables him to anticipate changes without removing his hands from the steering wheel. The Hollister automatic gearshift is held to be of simple construction and very efficient, as well as requiring no attention."

The Owen Magnetic, "The Car of a Thousand Speeds," had a really amazing transmission. Here are statements from the Owen Magnetic's 1915-1916 sales pamphlet: "There is no mechanical clutch to manipulate. The magnetic action between the electric transmission members... provides speed change ratios without shifting gears... Driving may be enjoyed without strenuous lever manipulation... It has antiquated the gear method... it is making obsolete every car that transmits power through rigid gear connections." The manufacturer of this machine,



"THE PUSH THE BUTTON CAR"

Why have you not written us for more particulars about the most distinctive car on the world's market?

You ought to know about the new **Electric Gear Shifting Device.** It will make a tremendous hit with the women folks as well as with their brothers.

It has been aptly termed the **"Push-the-Button-Car."** We do not ask the driver to shift gears, start the motor, or do anything but **"Push the Button."** The gasoline and electric current will do the rest.

It has, besides, everything else that a good car ought to have, Continental Motor (46.5 H. P.), Timken Axle, unit power plant, Stromberg Special, Bosch Dual, Multiple Disc, Westinghouse Lighter-Starter, Wire Wheels, Tires, 36 x 4½, Power Tire Pump, Vulcan Electric Gear Shift.

Let us tell you more about **The Pullman Automobile.**

Desirable Territory open.

THE PULLMAN MOTOR CAR COMPANY, YORK, PENN.

P. S.—If we have no dealer in your territory, write for our proposition.

1907-1925

the Owen Magnetic Motor Car Corporation, was in business in Wilkes-Barre, Pennsylvania, from 1915 to 1921.

In 1917, the **Radcliffe Turbine Drive** was available. This was basically the same as the modern fluid drive. At the 1918 Boston Automobile Show, a Studebaker equipped with the Radcliffe drive demonstrated the same performance similarly experienced by many motorists twenty years later.

The **Premier**, built in Indianapolis from 1903 to 1927, had an electric transmission during the later years of its manufacture. The Premier Motor Corporation's advertising in 1920 stated: "Note the absence of the usual hand-gear shift lever. Premier's gears are shifted electrically by means of a small lever on the control quadrant-- no larger than the gas or spark lever, and requiring no more effort in its operation." This device, perfected by the Cutler-Hammer Mfg. Co.,of Milwaukee, Wisconsin, was used only on the Premier.

The **Kurtz Automatic**, built in Cleveland, Ohio, from 1921 to 1923, had a shifting control similar to that of the Premier, except that it was not electrical but mechanical. An advertisement of the Kurtz Motor Car Company in 1921 declared: "The Kurtz Automatic... provides a simple new form of gear control that places it in a class by itself. This salient feature absolutely eliminates the gear-shift and emergency brake levers from the car floor. Gear control is effected solely on the steering wheel by a pre-selector lever. It is a purely mechanical device-- automatic, non-electrical, non-magnetic, fool-proof and absolutely reliable. The emergency brake is a convenient, pull-out handle, located in the dash." Both the Kurtz and Premier "automatic shift" cars were equipped with clutch pedals.

The **Pullman**, built in York, Pennsylvania, from 1907 to 1925, was, in their 1924-1925 ads, known as "The Push The Button Car!" The ads stated in part: "You ought to know about the new Electric Gear Shifting Device... It has been aptly termed the "Push-The-Button Car."..We do not ask the driver to shift gears, start the motor, or do anything but "Push the Button." The gasoline and electric current will do the rest."

Faced with so much evidence, it is apparent that the modern automatic transmission is NOT new, but is a feature that has been tried numerous times before.

Photo by Dorothy McLaughlin

WE'RE OFF TO

YOSEMITE

DETAILS ON PAGE 7

AUTHENTIC TOP MATERIAL FOR MODEL T TOPS

Questioned about the original type material used in making the 1911 to 1927 Model T tops advertised in the GAZETTE, Ken Sorensen advised that after a great deal of research over a period of about a year and a half a mill was located that still had the old plates. This mill is now producing material for the Sorensen Top Shop with the exact grain of the old original imitation leather in a vinyl plastic material. The new vinyl material does not crack and peel like the old imitation leathers and requires little or no care to preserve its original appearance.

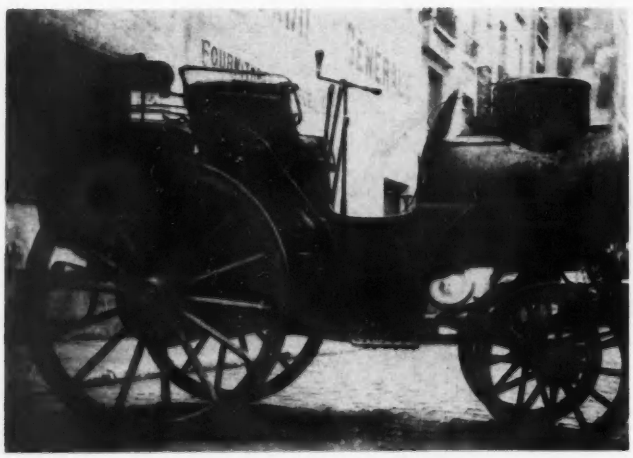
The JACQUOT STEAMER

BY JEAN DJANIGUIAN

Editor's note: Our member Jean Djaniguian is the kingpin of the French "Teuf-Teuf" club, which totals some 60 members, all driving cars built prior to 1905. In the past 25 years he has restored 59 cars without professional help, and this account of his latest should encourage those HCCA members who feel they're having a difficult time with a Model T.

The Jacquot steam vehicle completed in 1880 is certainly one of the most extraordinary as well as one of the oldest pioneer vehicles owned privately. Back in 1875 a country doctor named Jacquot conceived and started building this curious vehicle, spending a small fortune doing so. First he had a horse-drawn carriage built specially with a large tonneau-break body for six persons. Very strong wheels were fitted, all on heavy iron bands. The front wheels are steered from the driver's seat by a horizontal crank connected to worm gearing. The whole front axle with its full elliptic springs and wheels is mounted on a central pivot and can revolve completely under the car. Rear suspension is by platform springs; two semi-elliptic and a transverse spring. The entire body is made of wood but is reinforced in different places with iron plates.

The front of the vehicle was apparently copied from a locomotive, and the large vertical cylinder contains at the bottom a COAL burner. Just above this is the boiler, made of several coils of steel tubing which, is, in fact, an early attempt at a flash boiler. The engine is a twin cylinder type, double acting. One horizontal cylinder is located each side of the boiler. Valves are large sliding type and operated by a Stephenson link. The two pistons are connected to a crankshaft which has at its center a small gear driving directly a larger crown containing an elementary differential; the gears have herringbone teeth. On either side of the differential is a short axle fitted at its outer end with a spherical pulley giving the final transmission to the rear wheels by means of perforated leather belts. The belts are housed in separate bronze castings to protect them from grease or mud. Note especially that the belts roll on pulleys and wheel-crowns bearing

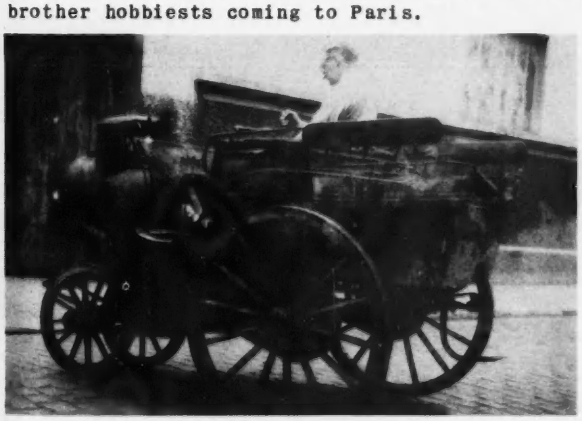


pins so that they cannot slip. Two water tanks are located under the rear seats and contain about 50 gallons.

All the engine controls are located within the driver's reach on the right hand side of the vehicle. They are: (1) A lever actuating the water pump for use before starting; (2) the Stephenson link control; and (3) the steam-throttle. When the car is running the water pump works automatically, driven by an eccentric on the right rear wheel. The lubricating oil is distributed to the engine by hand pumps. Under the driver's right foot is a differential brake and near his right hand a small wheel controls wooden brake shoes operating on the rear wheel rims. All this mechanism is very primitive, but Dr. Jacquot was so satisfied with it that he had the body beautifully finished; the upholstery, mudguards and dash were made of fine leather.

When I discovered the car it had been in a junkyard for about 40 years and was buried under tons of old tires. I had to wait several long weeks before I could really take a look at it, then I had to make a number of visits and discuss terms before concluding the deal. I spent two years of my spare time before being able to set fire to the burner, and after several hours nothing happened! Of course I did not give up, and I started taking everything down again, nut by nut. I had the cylinders rebored, new pistons made and the boiler tubing replaced by a new one which took me many Sundays to build. Then the valves were surfaced and ground thoroughly, the water pump rebuilt, and many secondary components gone over again.

Finally after another year of work I tried again and was lucky enough to be able to drive the car about a quarter of a mile. A wonderful feeling! But something is still wrong, although now I know what it is. I hope to have good news soon, though, for I am spending all my spare time on this wonderful JACQUOT in order to be able to show it as it was when new to all our brother hobbiests coming to Paris.



STANLEY STEAMER PILOT LIGHTS

Authentic new reproductions of PILOT LIGHTS for late model 20 horsepower Stanley Steamers. Also work fine on early models, giving improved performance. (Not suitable for 10 horsepower models)

Tested, guaranteed. Price $40.00.
Immediate shipment.

SEMPLE Engine Company
Box 2973,
St. Louis 17, Missouri

Automobile Old Timers now have a new name:
AUTOMOTIVE OLD TIMERS
New Address: 1780 Broadway, New York 19, N. Y.

ANOTHER CLUB -- Dutch this time

Last May a handful of Dutch enthusiasts formed the PIONEER AUTOMOBIELEN CLUB, catering to cars built through 1930. Membership has grown rapidly, and now stands at close to 100. In October the club organized a tour from Utrecht to Zandvoort which attracted a number of Belgian entries in addition to a large group of Dutch cars. The P.A.C. publishes a bimonthly 12-page magazine, "TUF-TUF," and is anxious to secure overseas members. For more information on this ambitious club write: JOHN M. KNAUD, 107 Thorbeckelaan, The Hague, Holland.

The P.A.C.'s oldest: A 1902 PEUGEOT

SERVICE DIRECTORY

ENGINE PARTS MADE to ORDER

Valves- Valve Guides- Valve Springs
Piston Pins- Pin Bushings- Alloy Pistons
Piston Rings- King Bolts and Bushings

IN ANY DESIRED OVERSIZE

HANDY ANDY SPECIALTY COMPANY

316 West 17th Street — Phone
Los Angeles, Calif. — RIchmond 2188

GASKETS FOR ALL ENGINES

Custom-made copper and asbestos cylinder head, manifold and exhaust gaskets for all makes and models of antique, foreign, racing, marine, Diesel and industrial equipment. Will need old gasket or pattern for sample.

ALSO

We have available an assortment of new stock head and manifold gaskets for cars 1916 to 1948. State your needs; give make, model, year of car, etc.

HEAD GASKET COMPANY

c/o Fred Stelling — 465 Bryant Street
SAN FRANCISCO, CALIFORNIA — Phone GA. 1 - 3333

OLD TIME RADIATORS

Rebuilt to look like new, with better than original COOLING EFFICIENCY

Skilled metal craftsmen and complete manufacturing facilities assure you UNEQUALED WORKMANSHIP

Old radiator and parts must be furnished as patterns or re-use.

STAR RADIATOR CO. Since 1918

Manufacturers of the famous ESKIMO RADIATOR CORE
649 Ceres Avenue. Los Angeles 21, California

LARGE PARTS STOCK

RADIATORS. 8 Oldsmobile from 1915 up. Send dimensions for quotation. Chevrolet 1913-15(?). New shell with emblem, A-1, good shape; radiator, $35; shell, $20. Fords 1917-27, $35; also other Fords for As and V8s; inquire. Dodge 1937, $45. Large stock of chassis and engine parts for Ford T and other old and new model cars; also, make special parts to order. We buy and sell surplus and obsolete items.

B.S. WISNIEWSKI AUTO PARTS
AMERICAS COMPLETE SUPPLYHOUSE
2131-33 So. Kinnickinnic Ave., Milwaukee 7, Wis.

Ken Sorensen Top Shop

1911 to 1927 MODEL "T" TOPS

Factory duplications and original type grained black material.

Write for detailed information and prices.

38 No. Hill Ave., Pasadena, Calif.

Learn to STRIPE

Like the Oldtimers

Completely detailed and illustrated Manual on

THE SWORD STRIPING BRUSH
ITS USE AND HANDLING

Postpaid $1.00

Shows and explains fully the old time methods and procedures that were used by the early carriage and automobile stripers. They were experts and you can learn their system of striping for refinishing your vehicle.

COLONIAL HANDCRAFT TRAYS
Box 356
New Market, Virginia

PARTS

LARGE STOCK CLASSIC, VINTAGE and SPECIAL INTEREST CARS and PARTS. Packard 1924-1931. Ford Model T and A. No brass. *If we do not answer your letter within five days, it will go on file until we obtain the parts requested.*

ATLANTIC AUTO and TRUCK SALES, 19020 So. Figueroa, Gardena, California

MOTOR ANNUALS: '38, '39, '40, '42, '43, $5.50 each. Catalogs: Olds '48, $1.50; Packard Custom '49, $3. Doble Steam Car, $10; Dyke's '15, '17, '18, '19, '20, $10 each. Motor Age Magazines, '20s, $1.10 each. Calif. License plages, 1914-24. Glass plate negatives, '20s. Send stamp for list AUTOMOBILIANA.

GRAHAME HARDY, CARSON CITY, NEVADA

NEW WHITEWALL TIRES

4.75/5.00x19	$22.16	7.00x18	$56.00
4.40/4.50x21	22.16	6.50x19	59.50
7.50x16	44.00	7.00x19	96.50
6.50x17	36.55	6.50x20	43.95
7.00x17	49.00	7.00x20	52.61
7.50x17	52.95	28x3 BLK.	29.95

Also closing out all our used clean high tread tires, 6.00x23, 6.00x22, 32x4½, 33x5 at $7 each. Payment with order.....OBSOLETE TIRE COMPANY
410 Boulevard, New Haven, Connecticut.

CLASSIFIED ADVERTISING

RATES

FOR MEMBERS: Free of charge for first fifty words. $.50 for each additional unit of twenty-five words or less. Photo printed with ad for $1.00 additional. If ad exceeds fifty words or if photo is to be printed, proper remittance MUST accompany ad.

FOR NON-MEMBERS: $1.00 for first fifty words, $.50 for each additional unit of twenty-five words or less. Photo printed with ad for $4.00 additional. Proper remittance MUST accompany ad.

GENERAL REQUIREMENTS:

1. The Classified Ad section is limited to the exchange of non-commercial items or services; the advertising of "commercial" items or services by individuals or companies shall be in the Service Directory or by display space advertising.

2. Classified Advertising is accepted for ONE INSERTION ONLY. Persons desiring to run an ad in more than one issue must send in new copy for each insertion.

3. Ads offering a car for sale MUST include the asking price.

4. Persons answering Classified Ads will receive a more prompt reply and will ease the burden on advertisers if they will enclose a self-addressed postal card or self-addressed stamped envelope.

For faster service, submit your classified ads on a postal card. Please type or print clearly.

DISPLAY ADS: $100 per full page; $50 per half page; $25 per quarter page. Advertiser to supply lay-out. Display ads in color (with advertiser supplying color separation), $175 per page.

For Sale

Maxwell 1919 touring. Body and fenders were removed, sandblasted, lacquer finished. Running gear is in solid, good condition also. $600.00. Pictures on request. Richard Braund, 1002 Academy Street, Elroy, Wisconsin.

New (still in box) steering rod anti rattlers, for all Model T Fords, $1.50 postpaid. Also to stop front wheel shimmying and make driving easier, new Keystone shimmy chasers. $1.25, postpaid. Jim Ellis, 8036 Bonner Drive, Houston 17, Texas.

V type radiator by National Can Company for Model T Ford. Very good; $40. Two 1917 front fenders for same; good; $10. One 1926 Ford roadster body and frame (1925), all for $5.00. Jerry T. Smith, 1027 Waverley Drive, Wichita, Kansas.

New application blanks for the Arizona Regional Group's Sixth Annual Grand Canyon Tour. Just need filling out and returning to Al Wethington, 6162 S. Fontana, Tucson 2, Arizona. All inquiries promptly answered. We guarantee full value for payment received.

Following items are all new Model T parts: Two camshafts with bearings, $12.50 each; two rods, $2.25 each; tie rod ends, 50¢. Headlight lenses $1.00; spindles with bushings, $3.00; brass radiator caps, $1.25; one set Apco motor supports $5.00; one oil tail lamp for 1916 to 1925, $10; spark plugs, 35¢; 1926 model ignition switches, with key, but no ammeter, $3.00; switch keys, $1.00. Send number of your switch. Following good used Model T parts for sale. Satisfaction guaranteed or money back: Three exhaust manifolds, $5.00 each. Three good carburetors, $6.50 each; one all brass Stromberg Carburetor; one all brass except bowl; Kingston carburetor; several 1919 to 1925 ignition switches with keys and ammeters, $8.50. One pre-starter era flywheel with magnets, $10.00; 1915 front end, good, $25.00. Please include self addressed stamped envelopes with replies. Maxwell P. Shaw, Rt. 3, Box 58, Hot Springs, Arkansas.

1936 Packard V-12 Dietrich Body Victoria coupe. This car has less than 50,000 actual miles. Original black finish, original leather, original Vogue white sidewall tires. Has to be seen to be appreciated. $2250. Don Jackson, 157 No. Mirage Ave., Lindsay, California.

LAMPS: One pair J.B. No. 16 for 1914 Ford, $60. Pair E&J No. 66, $20. One Victor No. 2. Two 1914 Buick tail lights, one with electric plug. One large pair C.T. Hams side lights. One L.H. Solar No. 1032. One pair brass and black, no name. Ray Ringer, Rt. 1, Box 433, Denair, California.

1911 EMF hubs, front axle, hood cover. Dodge 1915 engine, transmission. 1918 Hupp rear end, front axle. 1948 Crosley engine, transmission, rear end, radiator. 24 inch wood wheels; Packard 20 inch disc wheel. Cadillac 21 inch wheels. Tires: 34x4, 7.00x21, 6.00x21, 7.00x20, 6.50x20, 5.00x19, 5.25x18. Tubes. Joe Watson, 711 S. 33rd Avenue, Pocatello, Idaho.

Flying Lady ornament and radiator cap for Rolls Royce, about 1925. $65. Dr. R.E. Sayers, 112 E. Church Street, Libertyville, Illinois.

Pair Hall all brass ten inch gas headlamps, like new in every respect. $85. Pair 9½ in. black and brass gas headlamps, one cracked reflector, $45. Pair Dietz brass bail handle side lamps, some cracks, need restoration, $38.50. Pair No. 104 Gray & Davis brass sidelamps, need restoration. $50. Brass Adlake tail lamp, three lens, $27.50. Right Ford Brown No. 85 brass side lamp, $28.50. Pair excellent 1912 Cadillac side lamps, $40.00. Round black and brass tail lamp, $22.50. 1915 T side and tail lamps, $8.50 each. Brass T horn complete with tube and bulb, need some work but complete, $30. Complete single 1915 T headlamp, $9.50. Single No. 128 Gray & Davis brass headlamp, no reflector, $25. Right No. 2 Victor 1914 T sidelamp, ready to use, $25. Clem C. Hiser, 2503 West 79th Street, Inglewood, California.

T-rubber for around the windshield. Channel rubber for between the upper and lower windshield. For samples and prices, write: Earle S. Eckel, Sr., RD 1, Washington, New Jersey.

Cadillac shop manual, Type 61, copyright 1922. Cadillac-LaSalle Manual, 341A, 341B. LaSalle 303, 328, year 1928. Book of information, Dodge Manual, dated 11/1/1916. 6th edition. Charles Seewoster, 900 Fullerton Bldg., 122 North 7th St. St. Louis 1, Missouri.

Have on hand many parts (mostly new) for Stevens Duryea, vintage 1913-1914. Send description of your needs and self addressed envelope. George R. Read, 2488 Riverside Drive, Santa Ana, Calif.

FOR SALE

Brass head, side and tail lights. Brass bulb horns, horn bulbs, carbide generators, pair of 1912-13 brass Locomobile headlights; pair Hupp side lights, dusters, robes, coils. D. D. Way, 10430 Shaw Ave., Oakland, California.

LEAD: 1914 Moyer, completely restored. Has won many prizes. Can be driven anywhere. Will deliver 300 miles. Price $2000. Arthur Evans, RD2, Bangor, Pennsylvania.

1916 REO 4 cyl. 5 passenger touring. No rust. No wood rot visable. Leather upholstery usable. With extra parts car, $750. 1915 Overland 4 engine and radiator and shell; 490 Chevrolet engine, transmission, radiator and shell. Sell all or part, or trade. Robert Tapp, 1696 South Steele, Denver 10, Colorado.

1920 REO touring car; runs but needs restoring. $150. Gene's Auto Parts, South Highway, San Luis Obispo, California.

Complete and running 1917-20 (?) Cadillac chassis; low mileage; dash there with all gauges intact; wheels cut down to 20 inch; headlamps, but no parking lamps; would make a good speedster. $300. Marvin A. Ray, 4242 Mt. View, Las Vegas, Nevada.

Front and rear seat cushions for 1918 (?) Stutz touring. Leather covered, like new; best offer. V. Lesovsky, 306 Center St., Taft, California.

1927 LaSalle coupe. Body in good condition. Top and upholstery needs work. Has two extra tires and some parts. Also a manual. Price $250.00 or best offer; or will trade. Will send picture. Frederick Buenzle, 1491 44th Ave., San Francisco, California.

1915 Stevens-Duryea 6 cyl. roadster. New maroon paint job. Rubber fair. Includes many new spare replacement parts. Best offer over $1000. 1904 Stanley Steamer roadster. New rubber all around. Best offer over $2000. 1913 Stanley Steamer touring; rubber excellent; new rubber on rear wheels. Best offer over $2000. All above cars ninety-nine percent restored. Steamer has green body, yellow running gear. Enclose 50¢ for photographs. George R. Read, 2488 Riverside Drive, Santa Ana, California.

1917 Ford T touring, built in October, 1916, the 1st month of steel shell radiator production. Good condition except top and seats need recovering. $400, or near offer. W. H. Ashley, 510 Tanguy St. Logansport, Indiana.

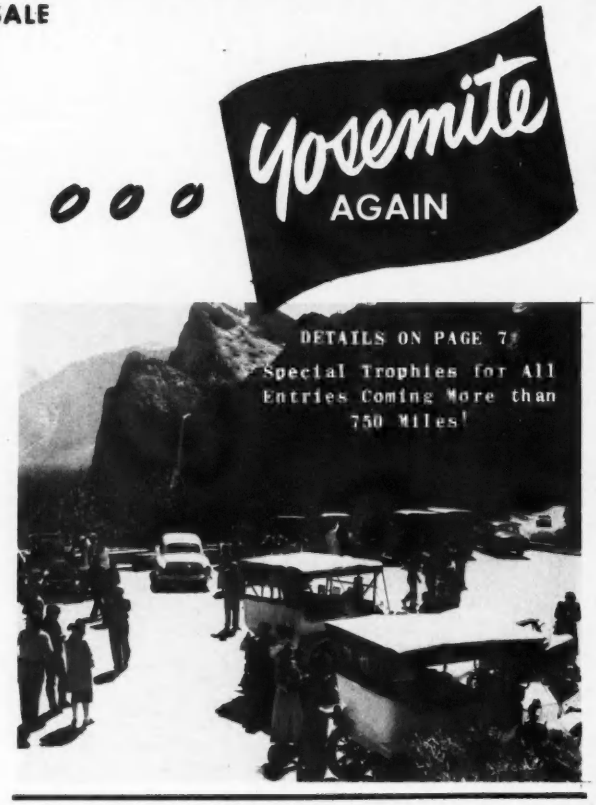
1919 Harley Davidson motorcycle in good running condition. Machine is in excellent restorable condition; needs one tire; best offer over $70. Chick Spence, 909 1st Ave., Salt Lake City, Utah. Phone EM. 4-3008.

Flywheel ring gears, new. State exact description wanted. Fred Halward, 52 College Road, Watsonville, California.

Ford T electric generator, $2.50. 1920 Dodge 4 coil, $1.50. Two sets 30x3½ tire chains, $3.00. Assortment small parts, $2.50. Inside silver plated fittings for 1920 Studebaker, $2.00. 1920 Studebaker instruction book, $1.50. 1913 Stanley Steamer instruction book, $6.50. Ten-key concertina, made about 1909, $7.00. Guitar, made in 1895, $7.00. Five copies Organ and Piano Music, published 1918, $1.50. Two books, leather bound, Guitar Instructions and Music, published 1859, $10. 300 ten inch records, antiques and collectors' items. 25¢ each or 12½¢ each for the lot. All above listed items in very good condition. F. W. Liang, 4236 University Ave., San Diego 5, California.

Light car trailer; all steel; 10 ft. channels; springs with helpers; drop center axle; 2 wheels; white sidewalls, 6.70 x 15; steel fenders; tail lights; stop lights; turn indicators; clearance lights; capacity about 1200 lbs. Trails perfectly. Like new. $250. Warren S. Weiant, Jr., Newark, Ohio.

Wiring diagrams of all popular makes of cars, 1912 through 1925. $1.00 for two copies. Elliott P. Fletcher, 433 8th Ave. W., Kirkland, Wash.



Ford phaeton, 1936, drive away, $350. 1928 Hudson roadster, $325. 1929 Chevrolet roadster, $225. Round trunk for inside of spare tires on circa 1912 cars. New solid brass motometers, old stock, $10.50 each. Others $5.50 each. Send stamped envelope for details. 1910 Cadillac 4 transmission, side lamp brackets. Carl H. Pennrich, Greenwood Lake, New York. G.L. 7-2384.

Set Dunlop 33x5 clinchers. Self generating headlamps. EMF transmission. Mercedes Benz supercharger. Wolseley 1914 touring. Thomas radiator. Stutz parts for all models. A. K. Miller, Montclair, New Jersey.

Pierce Arrow truck, 1907, rough, $250. H. Schick Box 867, Belmont, California.

1932 Packard phaeton, Ser. 902. Body, tires excellent. New paint and some chrome. Tonneau windshield and cover. Extra tires, etc. $750.00 cash. May take open Model T, A or Jeepster, plus cash. Ford 1923 runabout, plus 1926 chassis with wire wheels, new tires. Engine just overhauled. Body parts disassembled but complete. $175. Carl A. Lueder, Hotel Abraham Lincoln, Reading, Penn.

1917 Liberty Model 10B touring. New top and upholstery; completely rebuilt; 7 tires, 2 near new Firestones; 6 new tubes; spare parts; owner's manual; $750. Jake Jones, 3040 Bell Street, Sacramento 21, California.

1909 Maxwell runabout, 2 cyl. New 28 x 3 Firestone Non Skid. Natural wood wheels. Car is complete and about 75% restored. Price $850. J. H. Dagne, 1112 E. Service Ave., West Covina, Calif. Phone EDgewood 2-5948.

For 1912 Cadillac: Left side light (elec.) 30x3½ straight side tire. Live rubber; new. $19. Boyd Peer, 216 Boyer St., Johnstown, Pennsylvania.

Going east in September. If any club member has an antique auto not weighing over 3000 pounds that he wants to send east, I will trailer it to any spot on Highway 66 from coast to coast. Jack Wadsworth, 264 Pamela Rd., Arcadia, Calif.

FOR SALE

"MOTOR" (N.Y.) I have most of the issues from 1906 to 1924; (also about all the later ones). All numbers in good condition, unless described otherwise. Price $25.00 each, plus postage for those 1906 to 1924. Will furnish complete list for self-addressed envelope. Art Twohy, 400 No. Kenmore Ave., Los Angeles 4, California.

CLASSIC CAR AND ANTIQUE CAR catalogs for sale. Minimum price $5.00 each. Advise make and year in which interested. Enclose self addressed large envelope for full particulars. Art Twohy, 400 N. Kenmore Ave., Los Angeles 4, California.

Steam generator coils, two, stainless steel; suit small steam car. $250 each; few full size locomotive parts. G. Rosekilly, 350 Elm St., San Mateo, California. Phone DIamond 3-3700.

1926 Ford T coupe; restored; new black lacquer, Rajo overhead valve setup, Ruckstell axle, motometer and nickeled wind wings; $450.00. Warford transmission, $25. 1924 Ford T coupe, good running condition; good tires; $200. Ronald Kohl, 801 33rd, Anacortes, Washington.

Pair nickeled electric headlamps, 10¾ inch diameter, complete with reflectors and no-glare lenses. Drum type; no name but could have been off of Buick in early 20s. Perfect condition. $25, f.o.b. E. Aurora, N.Y. F.J. Balthasar, 650 Girard Avenue, East Aurora, N. Y.

Radiator ornament for any Pierce, $10. Genuine Pierce headlamp lenses, pair $5. For Ser. 33 or 36: New cylinder head gasket, $7.50. All f.o.b. Aurora. F. J. Balthasar, 650 Girard Ave., East Aurora, N. Y.

1918 Studebaker radiator, hood; motor complete, and instruments; 1916 Overland motor parts, fenders and front end. Fritz Gettel, 1327 12th Ave. So., Great Falls, Montana.

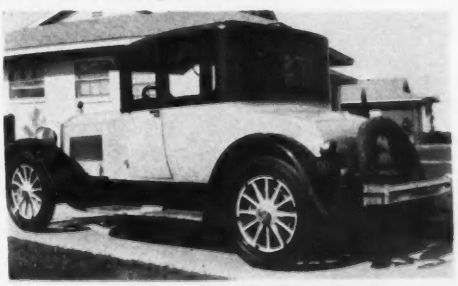
1913 Buick Model 24 4 cyl. runabout; right hand drive, gas and oil lamps, acetylene starter, speedometer, 6 new tires. Car complete with original equipment, ready to drive. Original tools, papers and instruction book. Car has been in new car dealer's showroom since 1922. 9,200 original miles. $1500. Adolph Neth, 144 E. Church Street, Bergenfield, New Jersey.

Wills Sainte Claire parts. Glass lens from 20s and early 30s. Send tracing of size and style. Automatic theatre piano and organ. Old car original advertisements. Rolls Royce sedan, nice shape, $1000. 1916 Hudson touring, 7 passenger, $200. Grandfather clock to sell or trade. Dan J. Bihler, 1303 Third Street, Moundsville, W. Va.

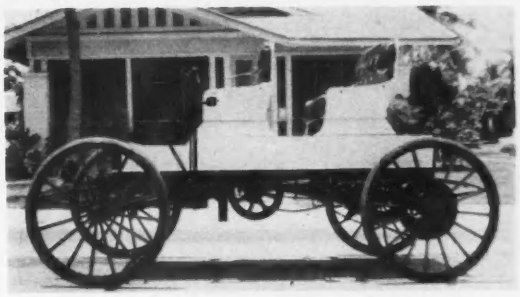
Dismantling 1913 Buick touring, Model 25 for parts. What do you need? Also matched pair spot lights for car of the twenties; black, chrome rims; no brackets. $12.50 the pair. Glenn Perkins, 3723 Petoskey Ave., Cincinnati 27, Ohio.

White truck 1926 stake body; good running condition. Drive away. $75. S.K. Wolcott, Jr., Box 124, Penn Yan, N. Y.

1924 Packard opera coupe; good condition; runs good; original colors. Storage problem the only reason for selling. Car has always been kept inside. Owner's manual included. Price $475.00. Dale Reeg, 1222 River Lane, Santa Ana, California. Phone Kimberly 3-5987.



1908 Sears Autobuggy Model P. Fully restored. Sell for $1750 or trade for early brass touring car, restored or complete; give or take difference. C. E. Sebastian, 265 SW 64 Avenue, Miami, Florida.



1911 Model 33 Buick. Rough but complete. $500. Natalie Perkins, 5 Claremont Avenue, West Terrace, Danbury, Connecticut.

Moon radiator cap with wings and motometer, $10. Franklin "radiator lion," $10. Durant, Star and 1928 Pontiac radiator nameplates, $2.00. H. L. Jennison, 1561 SE Linn St., Portland 2, Oregon.

1926 Rolls Royce Silver Ghost Pall Mall phaeton. Overhauled and restored professionally to originality. New upholstering, new top and top boot. Boot embroidered with emblem and "Silver Ghost." New paint, rugs, flooring, tonneau windshield, built-in cocktail bar with ice box, inlaid wood panel, side curtain-rods but no curtains. Color sea mist (Cadillac) green black wheels, top and running gear. Lady, trophies, ribbons and a few spare parts included. Original owner outstanding Hollywood personality. $3950, with 6 new tires, or $3450 with 6 tires now on the car, which have a good tread, but are undependable. 1000miles since overhauled. Article and picture page 16, Summer 1953 and page 35, No. 1, 1954. New tires cost about $75 each with tubes, 6.00x23 or 33x5. Eugene T. Ware, 5229 Kenilwood, Houston, Texas.

1924 Chevrolet touring, $225. 1929 Ford sedan, nice, $225. Set 21 inch T wheels and rims. 5.00 x22 tires; Model 115 J. N. Brown 1912-14 Ford T taillamp; pair '21 Ford front fenders; '22 Ford windshield; one set 1923 Dodge and one set 1923 Hupmobile steel felloe 24 inch wheels and rims. $10 per set. National Geographic Magazine, 1916. Engineer and Fireman Locomotive Magazine, 1888-1929. Harold Gilbert, 15 Jefferson Street, Dansville, N. Y.

1926 Ford T truck, $75. Load of Ford T junk, 7¢ lb. Take it all. Also early Dodge. '35 DeSoto, $60. '26 Dodge 4 door, $60. Two Packard 12s, at $175 and $250. '34 Packard 8 sedan, $50. C. Perrett, 787 DeAnza Drive, San Jacinto, Calif.

1934 Packard 8 cyl. Model 1101 7 pass. touring completely restored; new paint, top, upholstery, chrome and side curtains. White interior offset with red piping and carpets. Good tires; motor excellent; car immaculate throughout. $1,250. Jack DeVore or Richard Russell, 8916 Buckeye Road, Cleveland 4, Ohio.

FOR SALE

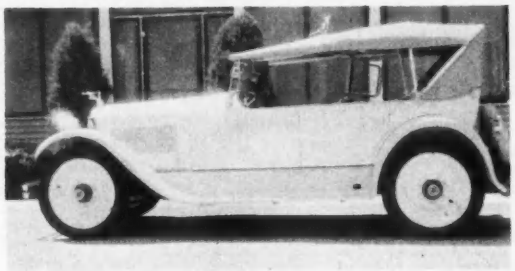
1931 Willys Knight coupe, Model 87. 6 cylinder, 53 h.p. sleeve valve engine. Has oil rectifier. This car has been driven less than 16,000 miles and it is just like new throughout. No rust. $250. Color photo, 50¢. Elliott P. Fletcher, 433 8th Avenue W., Kirkland, Washington.

1912 Simplex sport touring, Model 38. Selling price $4500. Driven only 5000 miles. 1921 Mercer speedster, $3500. 1915 Owen Magnetic touring, 6 wire wheels, original condition, $4500. 1910 REO touring, $1500. David Tunick, Box 356, Brook Drive, Greenwich, Connecticut.

1913 Packard 6 cyl. runabout. Completely restored. Engine completely overhauled. 5 new tires. New paint job, top, side curtains, boot top, electric starter. A car you will be proud to own. Firm price $3500. N.B. Owen, 4725 Upton Avenue So., Minneapolis, Minnesota.

1903 Cadillac 1 cyl. No. 573, Model A rear entrance tonneau body. A truly beautiful "brass" pioneer automobile. Completely disassembled and fully restored in the Davis Restoration Shop. Motor has new rings, rod and piston. Runs like a watch. Has all new wood in the body, which is upholstered in new genuine black leather in original diamond pattern. Brass decorative rails adorn the body, which is painted in rich maroon enamel with beautiful striping. New fenders in black. Wheels are in natural and have new Firestone tires and tubes, 28 x 3. The original top and all side curtains have been reproduced in special material by Fisher Body. The top support arms are covered in leather. Has two mounted brass bulb horns, three brass kerosene lamps, one square gas generator and one large brass gas headlamp. All the brass has custom fitted overall winter storage cover made of a special protective material. In 1952, this Cadillac won the Grand Award at Greenfield Village. In 1953 it was awarded the AAA Grand Prize on the 1953 Glidden Tour. Wherever shown, this Cadillac has won recognition. Nothing was spared to make this a restoration of highest quality and perfection. $5000. Details and color photo, 50¢, sent upon request. Charles E. Hulse, 2513 Thomas Street, Flint 4, Michigan.

1923 Packard sport phaeton. Restored to absolute mint. Everything new. As nice on the bottom side as it is on the top. Drive anywhere. $2800.00. Might consider taking trade-in. Jim Hagans, Box 31, Danville, Ohio.



Automobile catalogs and manuals: Acme, Autocar, Auburn, American-Traveler, Buick, Briscoe, Black Crow, Cadillac, Cutting, Case, Chalmers, Croxton, Durant, Essex, Elmore, Franklin, Great-Smith, Grant, Gearless, Henry 35, Hudson, Inter-State, Jackson, Krit, Kissel-Kar, Lion 40, Marquette (1912), Mitchell, Moline, Nyberg, Overland, Pullman, REO, Stearns, Willys Knight. Over 125 makes. Send name of and year of makes interested, with self-addressed envelope for information and prices. Frank E. Flahearty, 2614 St. Marys Avenue, Omaha 5, Nebraska.

PACKARD PARTS. 1938 V-12 and 1934 8 new hub cap medallions, new tire cover mirrors, luggage rack, inside trim, hub caps, owner's manuals, transmission, cylinder head, manifold, carburetor, tail light lenses and many other parts. All inquiries answered. Robert Helfenstein, 11130 Beaconsfield, Detroit 24, Michigan.

Parts cars, or restore: 1930 Oakland V-8 coupe, 1926 Star sedan, $50 each. 1935 Packard V-12 sedan, $100. 1928 Essex sedan, good, $125. Max Crask, 6335 Graham Road, Berkeley 21, Missouri.

1929 LaSalle operator's manual in fine condition, 56 pages plus large lubrication chart. Price, $3.00. Write Fred Hayward, Box 553, Paramount, California.

1915 Ford T touring. Restored. $1000. Chester Reger, 3006 S. 19th Street, New Castle, Indiana.

Duesenberg transmission, ring gear and pinion, drive shaft, brake drums, front and rear axles, instruments, Klaxon K-33 trumpet type horns, other engine, chassis and body parts. A. R. Thurn, 1865 Cloverleaf St., Bethlehem, Pennsylvania.

Duesenberg Model J engine complete. Ready to run. A.R. Thurn, 1865 Cloverleaf St., Bethlehem, Pennsylvania.

1930 Chevrolet tudor sedan. 31,000 actual miles; excellent body, good motor, original top still like new. $175, or trade for good Model A Ford. R. W. Smith, 205 Bluff St., Sioux City, Iowa.

1925 Ford sedan, cut into pickup, $25. 1911 EMF and 1920 Nash, parts only; two 4.40x31 in. tires used; large selection of new and used Ford Mod. T parts. Two American Bantams; one a 1938 roadster, the other a 1940 sport coupe, $500.00 for the pair. Photos available, William C. Beck, 34 Marple Road, Poughkeepsie, N. Y.

Brass foot rail 36 in. long, $10. Brass speedometer, $15. Pair carbide brass headlamps, with reflectors and burners; need some repairs. $35. Excellent brass carbide spotlight for mounting to dash, $35. Bruce Carter, Montpelier, Ohio.

1936 Packard convertible coupe, Std. 8, like new, and fully restored throughout, $1095. Franklin 1923 four door sedan, full restored throughout, $395. 1906 Brush runabout, restored, $1295. 1911 Ford T torpedo roadster, 75% restored, $850.00. Trippe Senior 8 inch driving lamps, brand new, $35 pair. Sy Morris, 1208 Leeper, South Bend, Indiana.

FOR SALE

1927 Cadillac 7 passenger sedan. 1956 license. No dents. New windshield and side glass. Steal at $150, for quick sale. Harold Munn, 311A Fowler, China Lake, California.

One large all brass carbide spotlight, complete and perfect, reflector good; price asked $75. One yellow brass 1912 Cadillac sidelight, electric, $12.50; left side. One 1910 Cadillac automatic tire pumping device; looks good. $12.50. Many new hubcaps, late twenties, $1.00 each. One Klaxon electric horn and one Trophy electric horn, both similar and good, $7.50 each. Two new Adlake oil tail lamps, each one clear and one red lens not brass, perfect, $12.50 each. Two 8 in. wide wing type radiator caps. They will hold motometer, and are new. $7.50 each. One brass electric tail light, from a Pierce Arrow I was told, $3.00. Speedometer and cable from 1923-24 (?) Chevrolet; appears to be perfect, $6.00; if it won't fit your car, your money back. One wood rimmed lock type steering wheel; fits cars in the twenties; new, $7.00. Please include self-addressed stamped envelope with replies. Maxwell P. Shaw, Rt. 3, Box 58, Hot Springs, Arkansas.

1914 Ford brass radiator roadster; black; brass gas headlights; working; brass horn. No top; upholstery bad, tires good. Ran like jewel until last summer. Don't think much wrong. Easy to restore. Asking $450. Write or call Phil Cordes Jr., 672 Meadow Court, Seymour, Indiana, for information or appointment to see.

1936-1940 small LaSalle hubcaps, $4.50 ea. 1936 LaSalle grille, with medallion, $25. 1939 Cad 60 Special grille, $20. New running boards for '39 Cadillac 61 and 1939 LaSalle Ser. 50, complete, $38.50 a pair. Jack L. Tallman, 1714 West Wood, Decatur, Illinois.

1932 Franklin sedan; a nice restorable car. $450. 1927 Buick sedan; new tires. $250.00. Herbert Briggs, 1337 So. Palomares St., Pomona, Calif.

First quality Spanish grain leather hides. Excellent for upholstery. Available in red or in green. Hides average 50 sq. feet. Price $25 per hide. Samples on request. Write Ed Dykstra, 296 Pomander Square, East Aurora, N. Y.

Running gears for 1907 Brush. No gears, etc. Just wheels, tires, axles and wood frame. 30x3 wheels. Brass hub caps in good condition. Please write; no calls. Ralph Queen, Box 183, Kirwin, Kansas.

Ford T rear spring, front master leaf, complete steering gear, front radius rods, set of brand new oversize stem valves and some odd valves that might fit relic cars other than Ford. George W. Tuck, 73 So. Shirley Ave., Pontiac 20, Mich.

1924 Chrysler Model 70 touring. Runs fine; first production model. In fine restorable condition. $250. 1925 Dodge Bros. touring. California top; very original; new paint needed for top shape. $325. 1937 Packard Super 8 4 door. Body, upholstery perfect. Motor needs work. 6 good tires. $175. P. W. Binford, 1133 Grant Avenue, Novato, California.

Lincoln Continental V-12 1948 hardtop sedan. Original blue repaint job recently. New WW tires, radio, heater. Recent overhaul. Complete. New clutch, brakes, transmission, differential with rebuilt front end. Clear vinyl over original grey Bedford cord interior; blue leather trim. Price $2100. J. Edwards Prewett, M.D., 407 Almarion, Route 7, Austin, Texas.

1937 Olds 8 business coupe. All original in every detail. 49,000 actual miles. $300, or best offer. Picture upon request. Jim Moloney, 867 New York Drive, Altadena, California.

Have various sizes of headlamp lenses, pairs or singles. Write your needs. Gerald O'Brien, 14235 Orchid Drive, San Leandro, California.

Closing out my library of old car manuals, travel guides and early books on a variety of subjects. For free list send large self addressed stamped envelope. Bob Hicks, 4704 Vineta Ave. La Cañada, California.

1927 Buick brougham sedan, Mod. 51 in all original like new condition; 2-tone green and black fenders. Natural wood-spoked wheels. Motor is in perfect condition. $800. 1929 Buick 4 door sed. in all good original condition. Four good tires. $300. Karl Jernes, 1314 NE Saratoga St., Portland 11, Oregon.

EXCUSE MY DUST by Partridge, 359 pages, 1943. Cute story of early day motoring. $2.75. Robert Hicks, 4704 Vineta Ave., La Cañada, California.

Am cleaning house; need the room; will sell unrestored 1922 Moon phaeton, $100. Also have numerous headlight lenses, $1.00 each, plus the postage. Aluminum case Warford transmission for Ford T plus shortened drive shaft and radius rods. $50 plus shipping charges. Ed Haney, 504 Hillcrest Drive, Bakersfield, California.

CONVERTIBLE CLASSICS: Both have bucket seats, r.h. drive sport bodies, good tires and general condition. Drive either away for $1500.00. Rolls Royce 20 h.p. (only 20 h.p. Rolls in U. S. with sport body). Delage 8, a huge French luxury sport car, looks like a king size MG. Bert Harrington, 105 Roanoke Ave., Atlanta 5, Georgia.

1902 Duryea. A rare and unusual pioneer car. One of the few cars remaining carrying this renowned name. 3-cylinder engine with make and break ignition, single chain drive, 36x3 rear tires, 30x3 front (semi-pneumatic) new. Natural wood-wheels, original leather upholstery. New patent leather fenders. New top. Car painted bright red,; yellow striping. Dos-a-dos front seat. Runs like you must expect the cars of that period ran. Speed about 20 miles per hour. Steering by tiller; carriage type candle lamp. Wooden body is original fish tail style. You can see a car of this type in the Ford Museum and Thompson Products Museum. Built in the period showing the transition from the horse and buggy to the automobile. Price $2,295. Nathaniel Adelstein, 1700 Calhoun St., Trenton, New Jersey. Phone: EXport 4-5264.

FOR SALE

Maxwell 1915 or 1916 engine, transmission, radiator, starter-generator. Timing gears broken. $50. Whippet, 1927-29 parts. Rolls Royce flying lady radiator cap, $50. Front bumper for early car, $5. Four cylinder magneto, $15. Spare tire cable lock, $5. Electric spot light, $6. Tool roll with large octogon hub cap wrench and tools, $10. Drive chain, $5. New 32x5 tire, $5. Buick oil gauge-ammeter, $3. Books: Overland 1920-25 catalogs and folders, $5-3. Model 30 and Greater 6 Willys Knight colored catalog, $10. Folders $3. Manuals: Willys Knight Model 66, $5. Hudson, Willys 1937, DeSoto 1936, Pontiac 1932, Nash 1936, $5 each. Dyke's Aircraft Instructor, $7.50. Dyke's Encyclopedia, 1918, $5. Garage owner and dealer, bound 6 months, 1910, $10. Popular Mechanics, bound 6 months, 1910, $10. Motor Library Stories, 1914, $3. Excuse My Dust $3. Dr. R.E. Sayers, 112 E. Church Street, Libertyville, Illinois.

Original McCalls patterns, dated August, 1921. Aged but serviceable. Ladies dresses, sizes 32 to 50. Misses dresses, sizes 10 to 20. Blouses, sizes 32 to 46. Ladies coat patterns, sizes 32 to 48. $1.00 each, or two for $1.50, postpaid. Glen D. Perkins, 3723 Petoskey Ave., Cincinnati, Ohio.

1930 Chevrolet coupe; rumble seat; runs well; good tires; ours since 1940; licensed 1957; original Duco, but needs woodwork in body. $200. G. Rosekilly, 350 Elm Street, San Mateo, Calif. Phone DIamond 3-3700.

1912 Cadillac roadster. This restored 4 cylinder copper jacketed Cadillac was built by Leland and has Kettering's original 24V electric starter. Has won several trophies in the northwest and has completed two Reno tours. It is the only known 1912 roadster in existence. This car is in A-1 shape and a faultless performer. Several extra tires and 400 lbs. of spare parts included. I can't get my whole family in a roadster so am restoring a touring car and need the space. $2600 or complete with trailer for $2995. Fred N. Gilchrist, 215 SE Morrison St., Portland 4, Oregon.

1909 Pierce-Arrow Model 36 Chassis. Serial Number 30111. Semi-restored chassis needs body and fenders but complete with all lamps. Have all information needed to duplicate 3 pass. roadster body and fenders. Here is the start for a very rare and exceptional antique car. $500.00. Fred N. Gilchrist, 215 SE Morrison St., Portland 4, Oregon.

1936 Cord Beverly sedan. Dismantled. Beautiful upholstery and instrument panel. 3000 miles on new factory engine. Needs second and cluster gear to complete. Worlds of spare parts (engine, radiator, etc.) included. $300. 1916 Studebaker roadster, rough, no rear fenders nor hood. Good wood and top bows. $200. Five new 5.50x20 4 ply tires, $100. 1938 Packard four door convertible. Has good engine, body, running gear. Needs top, paint and upholstery. $250. Karl Binner, West, Texas.

1939 Packard V-12 Brunn touring cabriolet. One of eight built and considered one of Packard's most luxurious vehicles. Mint throughout, with new top, chrome, lacquer with striping. Engine overhauled and chassis in good mechanical condition. 75,000 miles. Good Vogue recapped tires, rear seat radio and clock, elderdown and doeskin upholstery, burled walnut and mahogany paneling. $2000, or offer. Steve Barden, 44 Crest View Drive, Orinda, California.

New stop light complete: Include wiring, bulb, switch, mounting bracket, and brake pedal clamp. For Model T Fords and other type autos. $3.25 each, postpaid. J. Messick, 1437 W. Euclid St., Stockton 4, California.

Pair of rear lamps for 1932 Cord, $15. Brass steering wheel spider for 15 inch wheel, $8.50. Battery ignition unit for T, $12.50. Folding running board racks, $5.00. Eiseman dual ignition switch with built-in coil, $15.00; pair of Solar 10 in. drum type electric headlamps, $20. Excellent Gray & Davis 12½ in. electric searchlight with swivel fork, $45.00. Bosch brass twin mag switch, $9.50. Early brass Stewart speedometer head, $22.50. Left 1913 Cadillac side lamp, $15.00. Ignition switches with attached coils for Remy low tension magneto for straight dash 1912 type, $15.00. Model T brass horn complete, needs some dinging, $25.00. Complete brass water pump for 1912 Lycoming engine; shaft and gear attached, $25.00. French type brass dual tone bulb horns, 14 in. long, $8.85 prepaid; 12 in. Gray & Davis brass gas searchlight with swivel fork, cracked reflector, otherwise perfect, $55.00. Pair 1912 Cadillac side lamps, perfect, $40.00. Black and brass round tail lamp, not Model T, $18.50. Pair of perfect restored Hall gas headlamps, 8 in. fork; have been buffed and enameled, $75.00. No. 2 Victor square black and brass 1913 Ford sidelamps, $20.00 ea. Clem C. Hiser, 2503 W. 79th St., Inglewood, Calif.

1914 REO touring, 75% restored, $750.00. 1923 Studebaker Light Six, restored, $600.00. 1928 Whippet 4 sedan, restored, $200.00. 1930 Willys Knight sleeve valve sedan; new top and paint; side mounts; $100.00. 1930 Ford A 1-ton truck, 15,000 miles, like new, $250.00. One complete coil box for Ford Mod. N or C. Parts cars: 1928 Franklin, 1924 Buick 4, 1929 Buick, 1921 Overland, 1927 Whippet, 1918 Cadillac, 1926 Oakland, Model As. Marshall Woodward, 2219 Ohio Avenue, Connersville, Indiana.

Women's and children's 1900 era high top button and lace shoes; never worn; $1.00 per pair. Edison cylinder phonographs with horns, cylinder records, music boxes, hand roller organs, and pump organs; all in excellent condition. Everything plays perfectly. Neumann Miller, 436 West Colorado, Glendale 4, California. CItrus 3-4162

Chandler motometer. Used Ford T headlights. Lot of parts for 1927 Buick, including 20 in. wheels and split rims. Some fair to good used tires and tubes, 6.50x19, 6.00x22 and 30x3½. A few large Boyce motometers that are in good condition. I will buy a restored T touring if priced reasonably and is not too far. Must be at least 37 years old. Send pictures and description. Will buy shop manual for Overland Model 91. Send stamped self addressed envelope to R. Pierce, 4823 rd Street N.W., Barberton, Ohio.

1919 WINTON 7 pass. touring. Completely restored; maroon body, black fenders, natural wood wheels; authentic red leather upholstery by Ken Sorensen and tan khaki top. Natural wood bows. Engine spotless; dual ignition battery and magneto; tonneau windshield; wind wings. Photo in Vol. 15 No. 4 GAZETTE, page 30. Bargain at $3500. Wendell S. Fletcher, Fletcher Airport, Rosemead, California.

Shirts, many sizes and patterns, with or without collars, $4.00 apiece or 3 for $10.00. Circa 1915 brand new. Fabrics in excellent condition. L. Cummins, 1508 Garfield Ave., Salt Lake City, Utah.

FOR SALE

1913 Studebaker touring. Price $1500. John Lee, 1142 West "I" Street, Ontario, California.

1900 Locomobile steamer, fully restored. New stainless steel water tube boiler. $2500. 1909 E.M.F. touring, completely restored to mint condition. New Dunlop rubber. 4-time trophy winner. $3500. 1910 Baker Electric Victoria. Very rare; good original condition with leather top, batteries and charger; trailer included. $1900. John Carra, Jr., 623 W. Harding Avenue, Monterey Park, California. AT. 9-1361.

Ford parts for older models: Steering columns complete with brass gear cases; wood steering wheels (steel spider), spring plies, rear feather edge type. Magneto and flywheel assembly (not for starter). Transmission covers; crankcases; radius rods, perches, wheel bearings, and hood catches. For 1926-27 models: Runabout doors, gas tanks, windshield frames, new fenders for touring, sedan or 2-door, rear only. Hood, sills and catches. Two good doors from 1913 touring. Several complete motor block assemblies, starter type; cylinder heads; two Hassler shock absorbers, Ford T front; electric Klaxon horn; new rear fenders for 1932 Ford sedan or touring for rear only. Twelve new license plate brackets (clamps around radiator neck for larger cars.) Crank for International, 1912. Hub wrench for same; four springs from 1905-1906 Maxwell. Two rims 31x4 split type from light Studebaker; six solid rims, 31x4 clincher; many odd cranks and rims. Send sketch to match. Two old type drive chains; many other items. All the above in good condition; some new. Enclose stamped envelope for reply. Fred McKenrick, 603 N. Center Street, Ebensburg, Pennsylvania.

1927 Buick standard 2-door in A-1 shape. Newly painted black. Excellent tires. $385. Four 21 x 6.00 Pennsylvania heavy duty 6-ply tires, tubes and flaps. Less than 500 miles on them. $25 ea. New and used parts for Buicks of the 20s and early 30s. Ernest W. Raugh, 46 Algoma Boulevard, Oshkosh, Wisconsin.

Ladies linen duster, $20. Ostrich plume hat, $10. Antique wall telephones, $25 pair. Brass "Never-out" self generating lamp, $30. Round black side and tail lamps, $15 set. Pull type starter for Ford T, $20. Clamp-on tire pump, black and brass, $15. T generators, starters. All prices f.o.b., Trenton, H.C. Rush, 23 Amsterdam Rd., Yardville, New Jersey.

1928 Pierce-Arrow Series 81 5 pass. touring car with wire wheels, spare rear, fender lamps, engine rebuilt, crankshaft counter-weighted, original finish except fenders. Good original leather, tonneau windshield. $800. Also, 2 door Ser. 81 parts car, restorable. $150. S.K. Wolcott, Jr. Box 124, Penn Yan, N. Y.

1916 Cadillac victoria, like new, $3500. Fred L. May, 700 South Broadway, Santa Maria, California.

1923 Ford T roadster in fine and nearly original condition. Needs very little work for restoration. Second owner car. Contact Clare Clanin, Box 342, Astoria, Illinois.

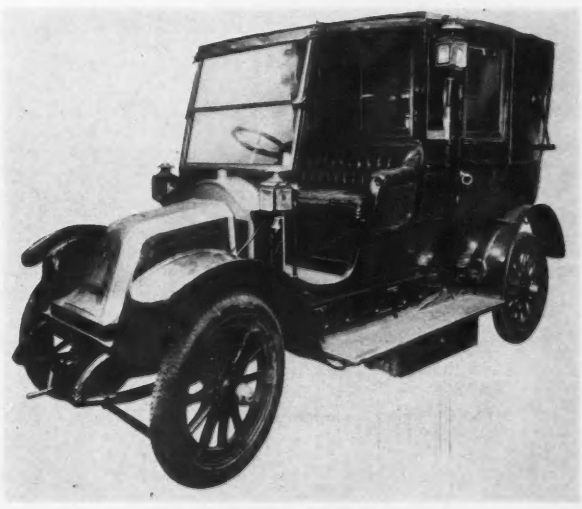
ANTIQUE CLOTHES! TRUNK FULL! Consists of: Ladies white embroidered Irish linen skirt, size 12; copper satin high neck, long sleeve blouse. black wool broadcloth cape, velvet and jet bead trimmed; two ladies white long dresses, size 12 and 14; black taffeta jacket, velvet trim, size 12; flannel overhead stole; ladies velvet evening coat, size 14, lovely salmon pink color with fur collar; ladies wool suit, size 14; jacket has mutton type sleeves; satin flapper pleated dress, size 16; black wool skirt, long with kick pleates; two pair high top shoes; 8 ladies blouses; long black faille evening coat; ivory lace jacket; long silk shawl, rolled edges; black fitted cape, practically solid jet beaded; silk cream capelet; plumes; man's full length fur coat (black bear) size 38; ladies large black lace hat, jet bead trimmed; 2 beaded bags; girl's silk dress; boy's black oxford type velvet jacket, braid trimmed. ALL this for $117.50. Sorry, nothing sold separately. Antique Clothes, 2204 Raleigh Street, Denver 12, Colo.

1918 Seagrave pumper; 600 gallon tank; paint, tires and general condition excellent. 6000 original miles. Asking $900. F. Adams, 1558 North Genesee Ave., Hollywood 46, California.

Streeter's annual antique auction: Cars, music boxes, guns, cast iron toys, machinal and still banks. Old country store items. Old drug store. Old drug store and barber shop steam engines, equipment, steam pumpers and fire equipment; horse drawn vehicles. For further information, write Streeter's Antiques, P.O. Box 730, Claremore, Oklahoma.

1923 Ford T touring; this car is partly restored and has top bows and sockets. Body and fenders all straightened; old paint removed, primer on it. Mechanically good. $200. For 1929 Ford: Radiator core and shell, front end suspension, 5 good wire wheels, motor and transmission; 4 doors for 1929 sedan, and used fenders. For 1930 Ford: Good radiator core and shell, $20. For Buick 1937 custom: Radio and clock. For 1938 Cadillac: Radiator core, shell, grille, two good tires and tubes (7.00 x 16). Packard 633 Std. 8 roadster, rumble seat, trunk rack, good lights, bumpers, 6 wheels, fair tires; needs upholstering, woodwork. $225. One set T wire wheels, 4.40x21, hubs, good used tires and tubes, 4.40x21; '27 T radiator core and shell. Two good doors for '26 or '27 T 2-door, $7.50 each. Send self-addressed envelope for more information. Art Gehlbach, 718 8th St. Lincoln, Illinois.

1906 Renault taxi. 12 horsepower. Tires good. Recently overhauled by Charles Stich of New York. A rare and unusual Renault. Asking $1500. Carmel Tintle, Carl Byoir and Associates, Inc., 10 East 40th Street, New York, N. Y.



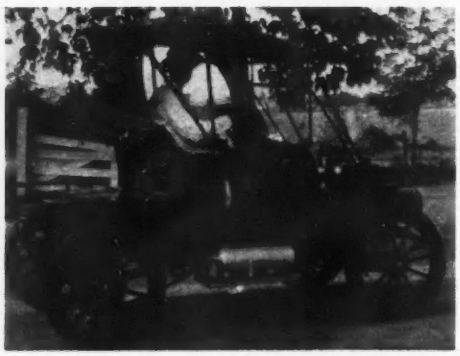
FOR SALE

FORD T PARTS: Front plate for Bosch ignition, $4. Pair rear shocks, $3. Ring and pinion, $5. Front spring, $3.50. Universals, $2.50. Pair of early valve doors, $1. Ignition keys, 25¢. Gas oil and radiator caps, 50¢ each. New Hassler parts, $1 each. Side water outlet, new, $1 ea. Crank pulley, new, $1. Oval gas tank, $3. Flywheel starter gear, $2. Driveshaft outer race, new, $1.50. 3 steel hub caps, 50¢ each. Magneto terminal, 50¢. Three clutch fingers, new, 50¢ each. Intake manifolds, $1 each. Copper carburetor float, new, $1. Wire loom (coils on head), new, $1. Prices plus postage. Will trade above for Model A racing equipment. Don Bestland, 349½ W. Garfield, Glendale 4, California.

2 cyl. air pump, brass upper, aluminum case, $6. Kellogg pump, $5. Stewart Pump, $4. Bosch B4 magneto, $5. Bosch horn elbow bell, $4. Gasoline air gauge, $1.25. Chevrolet 12 tooth pinions, $3. One 13 tooth pinion (not Ford), $3.00. Hancock brass dash pump with release valve, $4.50. Few hubcaps. Ontario license plate, $1. Winfield carburetors, Model S and SR. Pair top bow clamps (unidentified), $3. 1912 (?) Chevrolet starter and generator, $5 each. Chevrolet steering wheel (metal spider), wooden rim, $3. Solar brass bicycle lamp, $4. 4 cyl. Olds head, $5. Brass priming cups, straight and V8, 50¢ and 75¢ ea. Aluminum running board step plate, $1. Oval bell vibrator, 12 volt horn, $3.50. Don Bestland, 349½ W. Garfield, Glendale 4, California.

1931 Marmon V-16 close coupled 4 door trunk sedan. Stored inside and not run for the past 5 years. No rust. Needs paint, upholstery, chrome for mint restoration. Price $550.00. Will take brass lamps, etc. in trade. John B. Ogden, 2929 Chatsworth Blvd., San Diego 6, California.

1910 rare Model 14 2-cyl. Buick; unrestored but complete. $2200. C. Ferrett, 787 De Anza Drive, San Jacinto, California.



Swaps

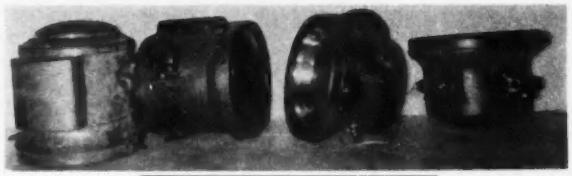
Two new Hood tires, 34 x 4, to trade for two new 33x4 matched tires; also trade or sell a 1916 Paige car; no body above frame; 4 good wheels and tires, front axle, rear end; has been used as trailer; also motor (frozen) and transmission for above car. Need for 1914 Chevrolet Royal Mail: Authentic picture of dash, shop manual, a parts book. Also would like 1914 Chevrolet speedometer that sits in dash. Lloyd Shaull, Blairstown, Iowa.

Pair 1912 Ford brass headlamps for pair suitable for a 1907 Mitchell. Will trade antique spark plugs, hubcaps or license plates with collectors. Harold Gilbert, 15 Jefferson St., Dansville, N. Y.

Will trade 1921 Chevrolet roadster or 1923 Overland touring, or both, for good restored classic; give or take boot. Must not be too far away. R. Pierce, 48 23rd St. N. W., Barberton, Ohio.

SWAPS

Have pair headlights, perfect, shown right, including both rear and rim reflectors, jets and lenses. Want to trade for drum-shaped pair, as shown on left. Must be in similar condition to mine for even trade. Also want the dash coil and arms with step plates for 1 cyl. Cadillac. Have one Cameron air cooled step plate (brass) free to bonafide owner of car of this type. G.R. Dysart, 6300 Victor Street, Dallas, Texas.



Trade four extra cars for or in on America's finest electronic organ C.G. Conn. C. Ferrett, 130 W. Main St., San Jacinto, California.

Dayton 25 inch wire wheels for Dodge, complete with hubs. Ash 21 inch wheels for Ford, complete with hubs, using either small or large Ford brake drums. Either set for 30x3½ wire wheels for Ford. Swap only. D. E. Dunning, 1109 No. Lincoln, Lexington, Nebraska.

Huge bail-handle sidelamps. Complete except for bottoms. Brass solid except for repairable crack in one top. Will trade for medium sized headlamps, in any condition. Will take or pay difference. Dave Root, RD6, Medina, Ohio. Phone Medina 3-3361.

Antique sewing machine, over 75 years old, nice cabinet, $20. 3 bicycles 1910-17 period, rebuilt like new, $40 each. Will trade on Ford parts or lamps. Fred McKenrick, 603 No. Center St., Ebensburg, Pennsylvania.

Swap or sell: 1935 Auburn Mod. 851 conv. sedan; restored, with 95% complete extra car for parts. Swap for pre-1913 Model T Ford touring, or sell for $1275. Bob Storem, 2802 Virginia Ave., Santa Monica, California. Phone EX. 54708.

Stanley Steamer ten h. p. engine, copper tube boiler and burner, for Model 730 Stanley parts. Jack L. Orr, Box 7223, Station C., Atlanta, Ga.

For 1928 Chevrolet pickup or coupe, will trade any or several of these: 1904 Autocar engine; 1906 REO chain drive rear axle, wheels, tires; 1914 Oakland Six motor; 1918 Chevrolet chassis and tires. 1927 Durant rear end; 1927 Essex motor. Will give or take cash. Ernest Broadbent, Rt. 1, Coulterville, Mariposa County, California.

Have right hand drive bulb horns, 1906 REO body, pair of brass and metal side lights with solid brass brackets, set of 1916 Maxwell top bows, Ford T motors, 1917 to 1927. Want double twist bulb horn for 1911 Ford, brass spider for 1912 Ford, perfect pair of front fenders for 1912 Ford; solid brass carbide tank and pair John Brown solid brass sidelights for same. Don Rickard, Rt. 2, Pekin, Indiana.

1928 Ford A touring; rare, good running condition; complete. Will take very little to put in new condition. Trade for 1915-22 Model T Ford, roadster or center-door sedan, in same condition. Or brass era car, rough but reasonably complete. Joe Ersland, Box 1, Chickasha, Oklahoma.

Wanted

For 1907 Model K one cyl. Cadillac: Roadster seat and rear deck, one tire lock ring. Am desperate, but not wealthy. Dave Root, RD6, Medina, Ohio.

Two distributors for 1924 Fords. 9 in. rims and 5 inch silvered reflectors for Maxwell brass head lights; dash instruments. Front fenders and any spare parts for 1916 Overland Six. Randy Denson, RFD 2, Rocky Mount, North Carolina.

WANTED

Pierce Arrow 1927 roadster parts: Tire pump that works off the transmission; clock for dash; handle for rumble seat; windshield side wings; side curtain frames; Waverly electric (1910) parts; 110 volt AC to 60 volt DC rectifier. Turner Kirkland, Union City, Tennessee.

Early clock that mounts in three inch hole on wood instrument panel on my 1914 Apperson Jackrabbit; also 1914 or older Model T hood former. Chauncey Cassidy, 1010 Central Ave. West, Great Falls, Montana.

Left front fender (straight) for 1916 Ford Mod. T. Jerry T. Smith, 1027 Waverley Dr., Wichita, Kansas.

Pre-1915 restored sedan, in good condition. Frank P. Zell, 1223 High St., Alameda, California.

For 1909 Ford: Engine, preferably under 2,500. One or two J.M. Brown No. 15 all brass headlamps; winged script Ford radiator, or top tank only; side arm latching touring top assembly, and two block letter Ford hucaps. Will pay well, or will trade scarce brass items. Donald B. Hess, Rt. 1, Hanover, Pennsylvania.

HCCA members to join one of the most unusual tours. Need daring, able bodied drivers and cars for a 730 mile run on the Tucson - Grand Canyon Tour. Cars must be 1919 or older, able to go up mountains as well as down. Will welcome all prospects. Details from Al Wethington, 6162 So. Fontana, Tucson 2, Arizona.

Curved dash Olds, preferably in unrestored condition. R. E. Tyson, P.O. Box 787, Chula Vista, California.

For 1941 Graham Hollywood: Left and right door window vent assembly for front doors, floor mats, right front door lock, radio speaker, sales literature, or a lead for any misc. parts. W.C. Gaedtka, 550 8th St., Lincoln, Nebraska.

Early auto or buggy, front top bow curved sockets (curved for more head room in getting in and out). Also standard '34 or '35 Chevrolet roadster or touring; pre-1910 truck chassis; one cylinder car or truck chassis; pre-1920 Pierce Arrow, unrestored; one or two all steel (felloe and spokes) 30x3½ lock ring type wheels. Harold Gilbert, 15 Jefferson St., Dansville, N. Y.

Pair of brass bail handle side lamps. Julian Malka, P.O. Box 162, Elk Grove, California.

Any extra parts for '10 Mod. 14 Buick, '11 Mod. 21 Buick, '12 Mod. 34 Buick, '12 Mod. 43 Buick, and '13 Mod. 25 Buick. C. Ferrett, 787 De Anza Drive, San Jacinto, California.

For 1918 Packard: Tail lamp, spare tire carrier and other parts. Please send list and price of what you have for this car. Jim Hagans, Box 31, Danville, Ohio.

Large White steamer condenser. Fred Halward, 52 College Road, Watsonville, California.

Wire wheels, 20 inch, for "Wire Wheel Corp. of America" hubs. Up to six needed. Richard Braund, 1002 Academy St., Elroy, Wisconsin.

Jordan Playboy information. Prefer contact with owner of 1922, 1923 or 1924. Richard Braund, 1002 Academy St., Elroy, Wisconsin.

Buick Master car, 1925-1928 or parts; and 21 in. tires; auto catalogs. Whitlock's Farm, Bethany, Connecticut.

JAN.-FEB. CONTEST WINNER

George Riggs, Los Angeles

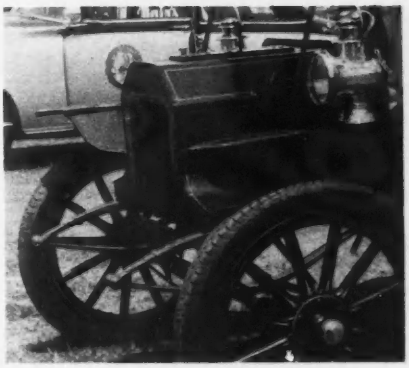
The cars: (1) 1910 PIERCE-ARROW (2) 1914 LOZIER (3) 1915 CADILLAC

IDENTIFY THESE CARS

A free copy of Dan Post's new book, "THE MODEL T FORD IN SPEED AND SPORT" to the first person correctly naming and dating these cars.

THE EARLIEST POSTMARK COUNTS!

1



2

3

WANTED

Chassis or any parts for 1911-13 4-cyl. Schacht. C. Ferrett, 787 DeAnza Dr., San Jacinto, Calif.

For 1931 Buick Limited roadster: Four hub caps, front and rear bumpers, Buick emblem on bar between headlights, mirrors for side mounts, radiator cap, any good body parts and fenders, a photograph of same car. Eugene C. Eldredge, RFD 1, Tecumseh, Michigan.

Cyclecar; prefer unrestored 1915 or earlier. Chad Dressler, 230 Scofield Dr., Moraga, Calif.

For 1910 IHC: Sidelamp brackets and instruction manual for watercooled IHC. Charles A. Fanucci, 1421 N. Branciforte Ave., Santa Cruz, Calif.

Wire wheels for 1929 Franklin and hubs for same to change from wood to wire wheels. Also pictures of the 1929 Franklin; prefer 8x10s. Also want Series 9 Franklin complete. C. R. Woods, P.O. Box 224, Wood Dale, Illinois.

For 1914 Cadillac: Rear half of body including rear doors and fenders, top bows or hardware. If I can't find one, I'll build it. Any information or help will be appreciated. Jim Heitcotter, 3007 E. Saginaw Way, Fresno 3, California.

Hood for 1915 Ford, plain or louvered, at reasonable price in excellent condition. Russ Good, 5737 Deborah St., Long Beach 15, California.

Shop manual for Ford Ts. Not the owners manual. William O. Sater, 205 E. Monroe St., Mt. Pleasant, Iowa.

Body or body information for 1910 Rambler Model 54. Also need top bows. Walter Cabral, 430 Homestead Road, Santa Clara, California.

Universal coupling for magneto on 1910 Hudson. C. W. Palmore, P.O. Box 307, Auburndale, Florida.

Ford T touring body, any year body will do. Parts for my 1909 Maxwell Model AA. Arthur Evans, RR2, Bangor, Pennsylvania.

Parts source for Northeast Company Ignition parts for Packard cars. Charles Seewoster, 122 North 7th Street, St. Louis 1, Missouri.

For 1926 Chevrolet: Good radiator shell, hubcaps, speedometer, tail light lens, name plate. For 1927 Ford: Hub cap, left rear fender (for roadster). For Model 91 or 92 Overland: Speedometer, name plate, and carburetor. M. A. Slider, 1602 Carson, Dallas 16, Texas.

Model T Ford touring, 1910 to 1912 unrestored; or a touring body and windshield for same. Paul Goheen, 1644 Fairview Ave., Manhattan, Kansas.

Instruction manual for 1919 6 cyl. Westcott. Also a picture of the Westcott with top up. Thomas Lyons, Box 322, Newell, South Dakota.

Good pair of rear straight fenders for 1914 or older Model T Ford roadster. Robert L. Smith, 530 So. 2nd Street, Springfield, Illinois.

Stanley Steamer condenser nameplate; radiator cap for same. Also two 28x3 clincher tires. F. Guldenbrein, 717 Vervais Ave., Vallejo, California.

For 1913 Model 25 Studebaker touring: Right and left rear doors, carburetor, top bows for a two man top and saddle to support in down position. Archie McCalla, 4505 U Street, Sacramento, Cal.

For 1925 Chevrolet Superior sedan: Wood spoked steering wheel, disc wheel, 21 in. 4-hole mount. Front and rear fenders. Aluminum radiator shell and rear door handles both inside and outside. R. L. Westcott, 399 S. Oregon St., Ontario, Oregon.

Restoring 1936 Ford phaeton. I need windshield frame and posts; frame needed very badly; four new fenders and steering wheel, deluxe or std. Door handles inside and out. Would appreciate leads on new 1936 Ford phaeton parts. Write to Fred Elstrod, RR3, Syracuse, Indiana. Or, call 627W collect, Syracuse.

Ford T, 1914 or earlier. If car is not close to California, price to be reasonable as shipping charges are high. Also any 1912 Hudson parts. All letters answered. S. R. Caswell, 9520 Olive St., Temple City, California. ATlantic 6-2402.

For 1914 Ford: License and tail lamp bracket, brass switch plate, early radiator cap, original brass tubing with connections for a Rubes bulb horn. Nevyn Rankin, Box 4340, N.C. State College, Raleigh, North Carolina.

Operator's Manual for Mod. 45 Interstate. Thain White, Lakeside, Montana.

Pre 1915 automobile. Prefer car with brass and in running condition. Also hood former for 1915 Ford. 34 x 4 tire suitable for spare. Sell or trade two 30x3 and two 30x3½ non demountable Ford wheels. Want rare unusual name hubcaps. Paul L. Garber, Sawyer, Kansas.

For 1914 Saxon roadster: Instruction book, hood, rear wire wheels (28x3), or hubs that I can respoke. For REO: Brass headlamps for 7½ in. yokes and front wheels (28x3). Can trade brass items for the above wants. Especially need the rear wire wheels. C. Moesle, RD6, North Canton, Ohio.

Jaeger clock for 1924 Cadillac, 3 5/8 inch o.d. Also outside door handles. L. E. Cummins, 1508 Garfield Avenue, Salt Lake City, Utah.

Disc wheels and hubs (21 inch) for a 1925 Chevrolet. Also hub caps to fit same. Scrappy Munyon, 7147 E. Zion St., Tulsa 15, Oklahoma.

Any parts for 1914-1915 single headlamp model Briscoe. Especially need drive shaft, housing, and pinion gear. Will take anything. Will pay premium for parts book or any literature on the above car. Or would borrow and photostat, or will trade from large selection of owners' manuals, 1906 to 1914. Would also like to contact other owners of this particular model. Also want 1909-10 Ford block or complete engine. Have salvaged a 1916 block that has been buried for over 30 years so will take anything there is even the most remote chance of salvaging. William Sorensen, Missouri Valley, Iowa.

Stanley Steamer radiator (condenser) emblem and two 28 x 3 inch clincher tires. F. Guldenbrein, 717 Vervais Ave., Vallejo, California.

1907 Pierce-Arrow parts: 4 thread diameter hub cap or caps, speedometer and cable, radiator, Solar No. 728 lamp or lamps, reflectors for 11-inch Rushmore lights, 27 inch wheels and rims. Would like to correspond with anyone having this type car. Virgil Carpenter, P.O. Box No. 13, Alsea, Oregon.

For 1906 REO: Steering wheel, two cylinder coil box and coils, front seat, wheels, wood fenders or patterns, hub cap. 1109 North Lincoln, Lexington, Nebraska.

Body for Ford T, 1911 or 1912. Will consider all or part, any condition. Also want radiator and windshield. Will pay cash or trade 1912 Overland 69T touring as is. Carl Anderson, 888 Linda Flora Drive, Los Angeles 49, California.

Touring body for 1910 or 1911 REO. Will pay $100 for lead on same leading to acquisition. May also consider another make of similar profile. Carl Anderson, 888 Linda Flora Drive, Los Angeles 49, California.

Model A Ford 1929 roadster parts needed. Right door handle (outside only); center front bumper clamp; windwings and/or brackets; original Ford hubcaps; electric windshield wiper; quail ornament for radiator cap. Can you help me? Harvey Rogers, 555 Buena Vista Ave., San Francisco 17, California.

Left John Brown No. 85 Ford side lamp. Winston K. Smith, 336 Kensington Drive, Madison, Wisconsin.

One hub cap for 1909 Cadillac Model 30. Rim and screen for Rubes horn single twist. Winston K. Smith, 336 Kensington Drive, Madison, Wisconsin.

WANTED

Pair of brass headlamps, Rushmore Model 806. The type used on Mercer raceabouts about 1912-1913. Joe Sala, 232 Lake Street, Reno, Nevada.

For 1912 Ford T touring: Running boards with word "Ford" running fore and aft; bracket for holding horn bulb to side of car; 1912 engine block with proper number and casting date. H. Keyser, 1088 W. McKinley Ave., Sunnyvale, Calif.

For 1921 Overland roadster: Turtleback and radiator. Would like to have any information on it. Bobby Steimann, 2200 McKenzie, Waco, Texas.

Touring car body for 1908 Stanley Steamer. Any parts thereof. C.L. Blake, Box 187, Springfield, Massachusetts.

Need EMF crankshaft. What have you? Dr. Rafe C. Chaffin, 1137 So. Westlake Ave., Los Angeles 6, California.

Ford T town car or taxi, any year. Will buy body alone or any small taxi body. Smith Motor Wheel and parts for same; also 20 x 2 clincher tire. Fred McKenrick, 603 N. Center St., Ebensburg, Pa.

Quail radiator cap for 1929 Ford Model A. R.W. Smith, 205 Bluff Street, Sioux City, Iowa.

A set of four 30x3½ wire wheels and hubs for use on Model T Ford. Will buy for cash or offer trade from a selection of brass gas headlamps, brass tail lamps, 1913-1914 Ford straight-out fenders and lamps. Prof. William G. Cain, Texas Tech, Lubbock, Texas.

Manifold for RAJO 8 overhead Model C; intake and exhaust in one unit. Fred McKenrick, 603 N. Center Street, Ebensburg, Pennsylvania.

1928 Packard Model 626 or 633. Charles Seewoster, 900 Fullerton Bldg., 122 N. 7th Street, St. Louis 1, Missouri.

Winfield carburetor for Ford T. Will buy or will trade Bosch magneto. Fits early Model T. H. Bradshaw, 6630 S. Virginia St., Reno, Nevada.

Wanted for 1908 Buick Model 10: Engine parts or engine side lamps, tail lamps, rear end parts. One hub cap. Boyce C. Goolsby, 1421 West Trade Street, Charlotte, North Carolina.

1912 Buick Model 35 parts: Hub caps, speedometer, shop manual, steering wheel, tail light, windshield frame. J. Eaton, RD2, New Kensington, RD2 Pennsylvania.

Pictures, plans, specifications or instruction books dealing with Model A and Model M Cadillacs. New Zealand enthusiast needs assistance if these one cylinder cars are to be properly restored. Will some HCCA member who has one or both of these models please write to Mr. J. D. McCraw, Box 67, Alexandra, New Zealand.

For 1913 Ford: One right hand drive transmission cover. Aluminum preferred. Jerry Auld, 4303 Coldwater Canyon Avenue, North Hollywood, Calif. Phone POplar 1-1917.

Information regarding exact year model of these two cars: Pullman touring, Model EMC2, Motor No. 2845. Oakland, closed body with "Staggered" doors, Model 34B. Serial No. NNC49322, Motor No. 1441132. Leonard Coad, P.O. Box 614, North Platte, Nebraska.

John Brown left No. 85 Ford side lamp. Winston K. Smith, 336 Kensington Drive, Madison, Wisconsin.

For 1906-1907 Model M Cadillac: Front wheels and rims (30x3½ tire size); spark and throttle hand controls; fender braces; rear fenders with steps; front seat (tulip); water pump and one hubcap. For 1905 Model C Ford: Brass water pump. Herb Prentice, 9734 Garnish Dr., Downey, Calif.

Radiator, lamps, windshield, body parts for '09 Maxwell. What have you? C. McCord Purdy, 336 N. Graham, Indianapolis, Indiana.

Brass Solar oil tail light. E. J. Pinney, Jr., 52 Bangor Street, Springfield, Indiana.

Shop or owners manual for 1928-1929 Packard, Model 626-633. Charles Seewoster, 900 Fullerton Bldg., 122 North 7th St., St. Louis 1, Missouri.

Antique wireless sets, parts and receivers. Made 1900 to 1922. Crystal detectors, crystal sets, old battery receivers, catalogs and books on wireless and radio. All letters answered. Will pay cash. Harold S. Greenwood, 2341 Ivyland, Arcadia, California.

Locomobile Steamer, or any parts thereof, preferably unrestored. H.M. Schick, Box 867, Belmont, California.

Radiator, 4-cylinder blocks, intake and exhaust manifold for 1910 Cadillac. Bernard Rademacher, 8769 Avalon Blvd., Los Angeles 3, California.

Duesenberg original Sales Catalog, Owners Manual, 1929 Parts List, 1931 Revised Parts List, Supercharger Parts List, radiator emblem, firewall emblem, chronograph, tail lamp assembly, altimeter barometer. A. R. Thurn, 1865 Cloverleaf Street, Bethlehem, Pennsylvania.

Copy of "The World's Automobiles" by C.R. Doyle and copy of "The Gasoline Age" by C.B. Glasscock. A. R. Thurn, 1865 Cloverleaf St., Bethlehem, Pa.

Franklin Lion radiator ornament. Open Franklin, any year. Max Crask, 6335 Graham Road, Berkeley 21, Missouri.

For 1915 Dodge roadster: Manual and top bows, complete. Trade touring top bows or cash. Need top rests. Carl A. Lueder, Hotel Abraham Lincoln, Reading, Pennsylvania.

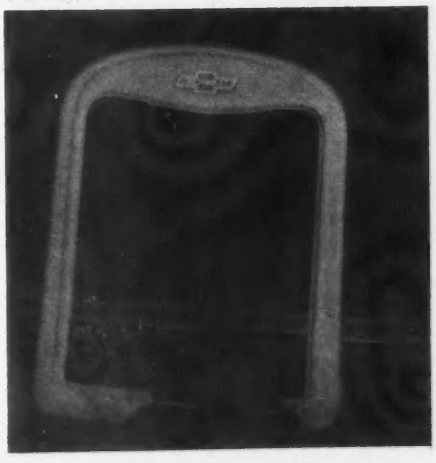
1941 Chevrolet Special Deluxe club coupe. 1941 Oldsmobile 98 conv. sedan. No hydramatic. 1941 Buick super conv. sedan. Will pay good price. Jim Moloney, 867 New York Dr., Altadena, California.

For early Dodge: Helical (curved tooth) pinion to match Lemco ring gear No. 9113; ratio 50-12. Need for perfect, early Ford T: Hubcaps, without "made in U.S.A." and without indentation in face. Also want complete original 1929 Ford A roadster, close home. James Schussler, 1001 Chestnut Street, Ashland, Ohio.

9½ inch Warner Patterson lenses. 2-1 Warner swivel joint. Drum headlamps (Hudson). Minerva radiator cap, wheels. Atwood 47 headlamp. Ryan lite lenses. A.K. Miller, Montclair, New Jersey.

1940 Buick Limited sedan (not limousine), either series 80 or 90. C. Ernie Shaw, 341 Granger Ave. Los Altos, California.

The twin brother of this culprit. They are identical twins, but the one I want is perfect, with no scars. This fugitive is all aluminum, 26 inches tall and fits a 1925 Chevrolet. Reward! Contact Scrappy Munyon, 7147 E. Zion Street, Tulsa 15, Oklahoma.



Fred and Edna Kane and their 1905
FRANKLIN at Yosemite Falls in 1953

As announced in the last GAZETTE, the 1957 HCCA Tour is the tenth, and will be the year's major event. Activities will get underway Thursday evening, June 13th, with a banquet in Fresno. On Friday the Caravan will head north on Highway 99 to Merced, then turn east towards Mariposa, and on to Yosemite National Park. Saturday the 15th will be a big day, with drives to Glacier Point and other world-renowned spots. The Caravan will return to Fresno on Sunday for the awards banquet. In addition to the regular prizes, there will be special awards for cars obliged to come more than 750 miles to the starting point.

MEMBERS OF ALL RECOGNIZED CLUBS
ARE INVITED TO PARTICIPATE.

PLAN TO ATTEND THE

TENTH ANNUAL

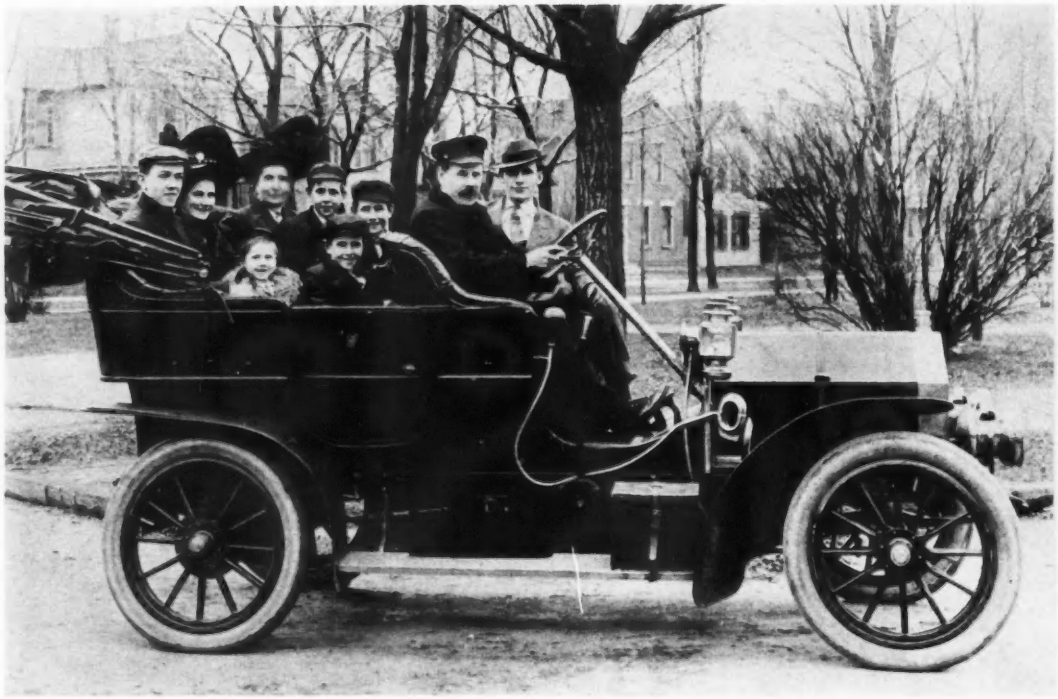
HORSELESS CARRIAGE CLUB

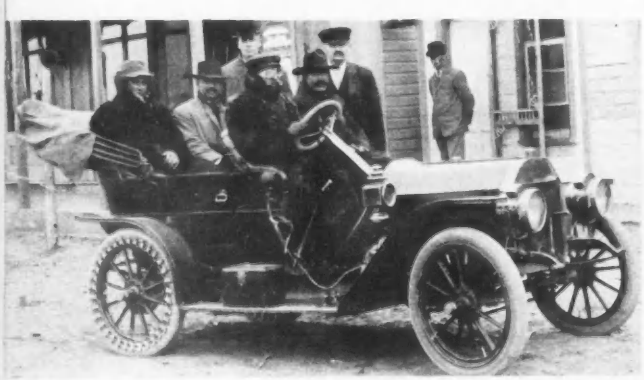
HERMAN BEAR, *Activities Chairman.*

FRESNO-MERCED
MARIPOSA-YOSEMITE
COARSEGOLD-FRESNO

CARAVAN

Our Family Photo Album





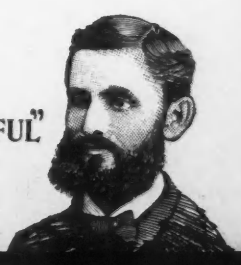
TOP: This family group in a c. 1908 AUBURN includes member William Poinsatte of Fort Wayne, Indiana. He's the small boy nearest the door. ABOVE LEFT: This photo, taken in 1912, shows friends of August Wahl of Kanorado, Kansas, out for a spin in a 1909 OAKLAND. ABOVE RIGHT: "WHO and WHAT?" This photograph has been in GAZETTE files for some years; can anyone identify the tourists or the car? LEFT: Another from August Wahl-- this shows a party of prospective land-buyers, including relatives of Wahl's-- off to inspect properties near Laramie, Wyoming, in about 1910. The first car on the left is a POPE HARTFORD, the second a four cylinder MAXWELL-- while the rest are unidentifiable.

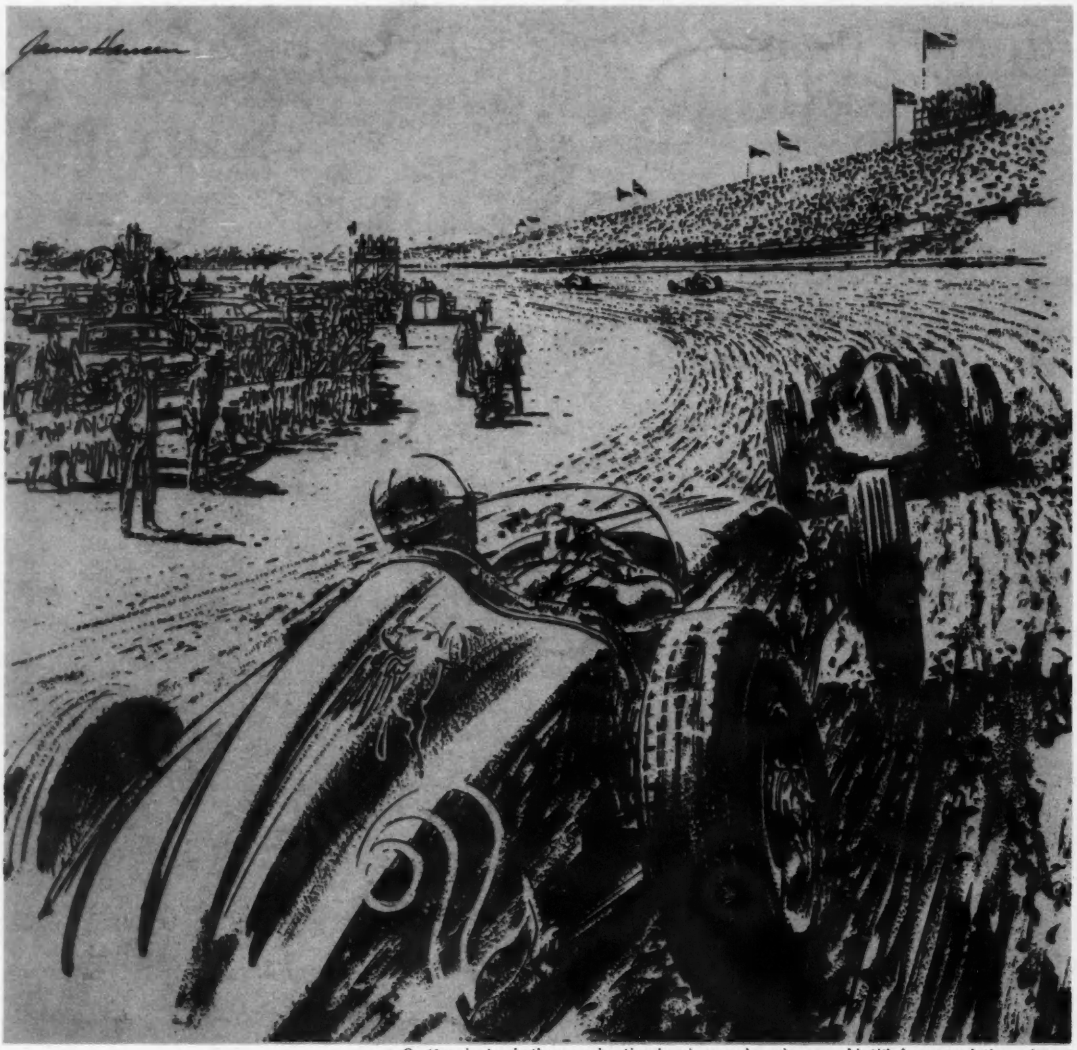
asinine alley

the don't do it yourself
CYCLE CAR

More Pleasant than Driving a Horse.

"SAFE AND USEFUL"





On 16 major tracks the annual national racing car champion earns his title by accumulating points.

How we learned to make Mobilgas Special

Every national racing car champion from 1950 to '55 has used Mobil fuels and Mobiloil. For years we've mixed "hot" fuels for national champs and nearly every other major engine competition.

That's how we learned to mix the fuel for today's high-compression passenger cars — Mobilgas Special. Compounded with MC4 additives, it smooths engines, boosts mileage. With Mobilgas Special your high-compression engine gives you everything its got.

Mobilgas Special

the high octane fuel for high-compression 1955, '56 and other "hot" cars

2-141C